

Lending a hand in horse health

Nonprofit organization travels to rural areas where people rely on horses to survive.

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May 2013 | Volume 44 | Number 5 | dvm360.com

Rodenticide manufacturer defies EPA on anticoagulants

Veterinary toxicology expert prefers banned poison over neurotoxin without antidote. By Julie Scheidegger

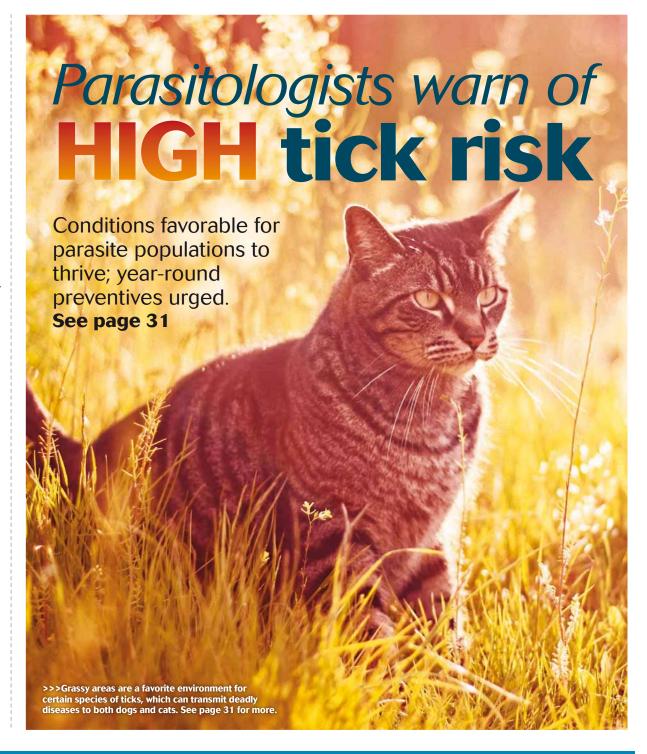
esticide manufacturer Reckitt Benckiser Inc., maker of the rodenticide d-Con, has reached a face-off with the U.S. Environmental Protection Agency (EPA) after defying new regulations that, according to veterinary toxicology experts, could prove harmful to pets.

Reckitt Benckiser has been noncompliant with the EPA's 2008 risk mitigation reforms, which were enacted in 2011 and require manufacturers to stop using long-acting anticoagulants in products meant for residential environments. As a result, the EPA notified the company in mid-February that it intended to cancel 12 of its products.

On March 7, the day before the EPA ban on d-Con's products was to take effect, the manufacturer requested a hearing before an EPA administrative law judge, effectively delaying the ban until the hearing is completed.

Conflicting safety concerns

While the EPA states that the anticoagulant products "pose unreasonable risks to children, See page 30





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- ¹ Straubinger RK, Chang YF, Jacobson RH, Appel MJ. Sera from OspA-vaccinated dogs, but not those from tick-infected dogs, inhibit in vitro growth of Borrelia burgdorferi. J Clin Microbiol. 1995;33(10):2745-2751.
- ² Rice Conlon JA, Mather TN, Tanner P, Gallo G, Jacobson RH. Efficacy of a nonadjuvanted, outer surface protein A, recombinant vaccine in dogs after challenge by ticks naturally infected with Borrelia burgdorferi. Vet Ther. 2000;1(2):96-107.
- ³ Probert WS, Crawford M, Cadiz RB, LeFebvre RB. Immunization with outer surface protein (0sp) A, but not 0spC, provides cross-protection of mice challenged with North American isolates of Borrelia burgdorferi. J Infect Dis. 1997;175(2):400-405.



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In case you missed it ...



The most-read item last issue

Ohio woman gets 18 months for posing as veterinarian

Brandi Tomko, 35, of Akron, Ohio, was sentenced to 18 months in prison after being found guilty on four felony charges and four misdemeanors related to

posing as a veterinarian. Scan the QR code with your mobile device to read more



News you need to know



Veterinary updates in record time

The dvm360 Five

dvm360 reporter Julie Scheidegger hosts the dvm360 Five, bringing you expert practice management advice from Mark Opperman, CVPM, tips

from Dr. David Bruyette on managing feline hypothyroidism with an iodine-restricted diet and commentary from Dr. Marcia Heinke, CPA, regarding the impact of the Affordable Healthcare Act on veterinarians. Scan the QR code at right with your mobile device or visit dvm360.com/five to watch now.



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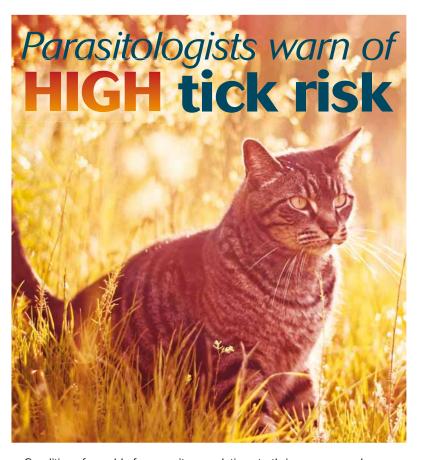
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WHERE DID I GO WRONG?

Michael A. Obenski, DVM

Welcome to CICLZ 1 LO1/1/1 Population: My veterinary clients.

was on vacation last year when I ran into Dr. Skeptic. He recognized my name and had an important question for me. "How do you think up all those crazy things you write about?" he asked.

I was shocked. He thought I invented my subject matter? Crazy things happen to me all the time. I expect it. Why? Because I'm a veterinarian, and veterinarians tread water in a sea of buffoonery.

I said as much to Dr. Skeptic, but he didn't agree. He said such things were not commonplace where he practiced. Really? Where was this guy from? The only state I know of where veterinary practice is uneventful is the state of unconsciousness.

Dr. Skeptic, however, seemed very much awake. I was perplexed by his description of an orderly world, but all I could do was assure him that my column was like the *Dragnet* television series—the incidents were true, but the names had been changed to protect the innocent.

Case in point: Mrs. Parsley and her cat, Goldy.

"Doctor, my poor kitty has been ailing for a month," Mrs. Parsley told me not long ago. I've been doctoring him at home, but it isn't working. He gets sick a lot, and I can't afford to run over here like this all the time."

A glance at the record indicated that I had indeed seen the cat several times. Three visits since 2004, to be exact. Her history proceeded.

"Last month he threw up once. I dipped his feet in yogurt right away. I heard that would stop any poison if it got into him somehow. It must have worked, because he stopped vomiting the next day. But ever since then, he hardly eats. I make his food at home. It's a combination of alfalfa sprouts, tofu and vitamin C."

While marveling that the cat had managed to live this long, I asked about his vaccinations.

"Oh, I don't believe in shots," she said. "I once had a cat who had a distemperment shot and got real sick a few months later."

I explained that Goldy appeared to be jaundiced and would have to stay for a few tests.

"Well, I guess that will be all right," she said.
"I'll have my son call you. He's a doctor."

I perceived a light at the end of the tunnel. This woman had an intelligent family member I could talk to! A few hours later he called me.

"Hello, Dr. Obenski? This is Dr. Parsley. My mom explained that you're going to do some tests on her cat. Will you make the diagnosis by looking at the blood or will you run tests that use chemicals? I don't trust those so-called scientific tests."

The light at the end of the tunnel was growing dim.

"In humans we use 'organ builders' in this type of situation. There are certain 'vita-herba-cures' that can be given to strengthen all the internal organs."

It was a cave-in.

All of a sudden I realized who I was talking to. According to his newspaper ads, "The Great Dr. Parsley" could cure anything with "spirit healing, elixir of health, positive thoughts and magnet consciousness." He was in my office the next day with a bottle of "organ builders" for the cat. The fun began when I asked him about the dosage.

"I figured we'd use a surrogate," he said. "I mean, why not? We use them with humans all the time."

He introduced a strange-looking lady who put her hand on the cat's head. Dr. Parsley held the lady's hand and explained that her "special gifts" would analyze the cat and transfer the information to him through her pulse. A moment later he had his answer. Taking an empty dropper bottle from his pocket, he proceeded to fill it with tap water. Then, after adding a few drops of some gooey liquid, he announced that the cat needed "exactly three drops a couple of times a day."

Fortunately, the cat went home a few days later. I had treated it for infectious anemia along with the administration of the miracle drops. You can guess which treatment got credit for the cure.

The story you just read is true. The names, however, have been changed to protect the ignorant. dvm360

Dr. Michael Obenski owns Allentown Clinic for Cats in Allentown, Pa.



illustration by ryan ostrander dvm360 | May 2013 | 7



Scan this OR code with your mobile device to share the news of the rare five-legged calf born in Texas!

OroCAM™ (meloxicam) Transmucosal Oral Spray Non-Steroidal Anti-Inflammatory Drug for oral use in dogs only.

Caution: Federal law restricts this drug to use by or on the order

BRIEF SUMMARY: This summary does not include all the information needed to use OroCAM safely and effectively. See the Package Insert and Client Information Sheet for complete prescribing and other information.

For Animal Use Only For Oral Use in Dogs Only

WARNING

Repeated use of meloxicam in cats has been associated with acute renal failure and death. Do not administer meloxicam transmucosal oral spray to cats. See Contraindications for detailed information.

Description: Meloxicam belongs to the oxicam class of non-narcotic, Non-Steroidal Anti-Inflammatory Drugs (NSAID). Each milliliter of OroCAM contains 5 mg meloxicam.

Indication: OroCAM (meloxicam) Transmucosal Oral Spray is indicated for the control of pain and inflammation associated with osteoarthritis in dogs.

Dosage and Administration: Always provide the Client Information Sheet when prescribing and dispensing OroCAM. Use the lowest effective dose for the shortest duration consistent with individual response. Due to the pump sizes, dogs weighing less than 5.5 pounds (2.5 kg) cannot be accurately dosed. OroCAM should be administered once daily at a dose of 0.1 mg/kg (0.045 mg/lb). See Bottle/Pump Assembly Instructions for Veterinarians and Administration Instructions for Owners.

Contraindications: OroCAM (meloxicam) Transmucosal Oral Spray should not be used in dogs that have a hypersensitivity to meloxicam or known intolerance to NSAIDs. Do not use OroCAM

Do not use OroCAM in cats. Acute renal failure and death have been associated with the use of meloxicam in cats.

Human Warnings: Not for use in humans. Keep this and all medications out of reach of children. Consult a physician in case of accidental ingestion by humans or contact with mucous membranes. Direct contact with skin, eyes, and mucous membranes should be avoided. If contact occurs with skin, the

Other Precautions: The use of OroCAM (meloxicam) Transmucosal Oral Spray has not been evaluated in dogs younger than six months of age, dogs weighing less than 5.5 lbs (2.5 kg), dogs used for breeding, or in pregnant or lactating dogs. Meloxicam is not recommended for use in dogs with bleeding disorders, as is not recommended to use in ougs with obeself disorders, as safety has not been established in dogs with these disorders. Concurrent administration of potentially nephrotoxic drugs should be carefully approached. Please refer to the full Package Insert for more complete information on possible interactions and other participant information.

Common Side Effects: The most common adverse reactions involved the gastrointestinal system (see the Table in the Package Insert). Non-gastrointestinal adverse reactions were rare and included increased liver enzymes, hematuria, lethargy, polydipsia.

The incidence of adverse reactions observed in a clinical study is tabulated in the Package Insert. The pattern suggests some gastrointestinal effects (vomiting, diarrhea) are associated with OroCAM. The clinical signs were generally mild, transient (lasted 1-4 days during the 28-day study period), and resulted in complete recovery. There were no clinical signs related to the increased liver

Effectiveness: Effectiveness was demonstrated using OroCAM in a masked, placebo-controlled, multi-site field study involving in a masked, piacebo-controlled, multi-site field study involving client-owned dogs. In this study, 28d dogs diagnosed with osteoarthritis were randomly administered OroCAM, or a placebo. Dogs received a daily meloxicam dose or placebo for 28 days. Effectiveness was evaluated in 286 dogs and field safety was evaluated in 280 dogs. After 28 days the treatment group showed a success rate (improvement of clinical signs) of approximately 73% and the placebo group showed a success rate of about 47%. 73% and the placebo group showed a success rate of about 47%

See full Package Insert for more details, as well as for results of

California UC-Davis opens \$58.5 mil. veterinary research facility

Large research enterprise to focus on animal and human health.

The University of California-Davis School of Veterinary Medicine recently opened a new four-story, \$58.5 million research building. Part of the school's \$63.7 million research enterprise, the Veterinary Medicine Research Facility 3B will be dedicated to making discoveries in basic science as well as human, animal and environmental health. A UC-Davis release says the research facilities are the largest in the nation among veterinary colleges, with 76,000 square feet of assignable space in the new building designated for 40 biomedical research teams. Their studies will focus on diseases that affect animals and humans, autism, nutrition, reproduction, respiratory disease, neurobiology, food safety, toxicology and aquatic toxicology. The building is also home to the 100K Genome Project, which aims to sequence the genomes of 100,000 infectious microorganisms and speed diagnosis of foodborne illnesses.



>>> The 76,000-square-foot, four-story Veterinary Medicine Research Facility 3B at the University of California-Davis will be dedicated to making discoveries in basic science as well as human, animal and environmental health.

Minnesota

The Minnesota Zoo announced the successful hatching of its first endangered African penguin chick March 2. The chick is currently being raised behind the scenes by foster parents, as the biological parents were not incubating the egg consistently.

African penguins, like most other penguin species, are endangered in the wild. "Oil spills, historical hunting and destruction of their habitat have killed 80 percent of the population in the last 50 years," a release from the Minnesota Zoo states.

The chick, whose sex is not yet known, is healthy and thriving.

New Jersey

A Jersey show cow recently brought a record-high price at auction in Syracuse, N.J., Karlie, a 3-year-old whose full name is Page-Crest Excitation Karlie, sold for \$170,000 to Arethusa Farm of Bantam, Conn. Reports say Karlie's attributes include a physique that's skinny and tall, meaning her body is efficient at making milk. Her udders are well-attached and don't sag, allowing her years of milking. She also has perfectly placed hip bones, making it easier for her to birth calves. Karlie will be used for breeding, both traditionally and through the use of surrogates. Her fertilized embryos are worth about \$6,000. It's estimated that a calf born to Karlie will be worth about \$20,000

Rhode Island

The Rhode Island Senate has voted unanimously to stop landlords from requiring tenants to declaw or remove the vocal cords of dogs. "Individuals with rental properties have a right to a 'no pets' policy, but they should not be allowed to require renters to force pets to undergo potentially dangerous and totally unnecessary procedures," said Senate Majority Leader Dominick Ruggerio in a release. "There are other ways to protect property without putting pets at risk, forcing them to undergo harmful, dangerous and expensive procedures."

If enacted, violators could face fines of up to \$1,000, be barred from owning or possessing any animals or required to take humane education, pet ownership or dog training classes. The bill is similar to California law.

A calf born March 9 on a ranch 12 miles west of Brenham, Texas, arrived with a fifth leg attached just behind her shoulder near the spine. Mixed animal veterinarian Lee Panko, DVM, owner of Brenham Veterinary Hospital, removed the rare extra limb for the calf's owner Charles Harmel. "I didn't believe him at first," Panko says. "I haven't seen this before. It's a very interesting case." After consulting with the College of Veterinary Medicine at Texas A&M, Panko performed the surgery on the 16-day-old calf.

Panko's biggest concern was that the extra limb was somehow attached to the calf's spine. Once surgery com-

menced, he was relieved to find it wasn't attached to the vertebrae, but attached to



the rib cage. "The good thing was the limb wasn't attached to the spine or the vertebrae so she has good mobility." Panko says.

Post-surgery the calf was up within



15 minutes and Panko was able to send her home the same day. A month later, the calf was doing fine. "She's out with her mother get-

ting along great—doing well." dvm360

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<u>Indication:</u> OroCAM (meloxicam) Transmucosal Oral Spray is indicated for the control of pain and inflammation associated with osteoarthritis in dogs.

Important OroCAM (meloxicam) Safety Information: WARNING: Repeated use of meloxicam in cats has been associated with acute renal failure and death. Do not administer meloxicam transmucosal oral spray to cats. See Contraindications for detailed information. Warnings, Precautions, and Contraindications: For oral use in dogs only. OroCAM should not be used in dogs with known hypersensitivity to meloxicam or other NSAIDs, dogs weighing less than 5.5 pounds (2.5 kg), or dogs younger than six months of age. It has not been evaluated for safety in breeding dogs, lactating dogs, or dogs with bleeding disorders. Adverse Reactions: Common adverse reactions include vomiting, diarrhea, increased liver enzyme values, and loss of appetite. In clinical studies, the clinical signs were generally mild, transient (lasted 1-4 days during the 28-day study period), and resulted in complete recovery. There were no clinical signs related to the increased liver enzymes. Kidney or liver damage has been reported with other NSAIDs. Other Recommendations: All dogs should undergo a thorough history and physical examination before the initiation of NSAID therapy. Appropriate laboratory testing to establish hematological and serum biochemical baseline data is recommended prior to and periodically during administration of any NSAID.

See Brief Summary of Prescribing Information on adjacent page.

For Oral Use in Dogs Only

Caution: Federal law restricts this drug to USE

To learn more about OroCAM, contact Abbott Animal Health Customer Service at 888-299-7416. Promist is a trademark of Velcera, Inc. OroCAM is a trademark of Abbott Laboratories. ORO-061 March 2013 © Abbott Laboratories.





STETHOSCOPE I Heartbeat of the profession



LENDING A HAND IN HORSE HEALTH

Nonprofit organization travels to rural communities that rely on horses to survive. By Ashley Barforoush

hey had just packed the last piece of equipment in the van and were about to start an 11-hour trek to the airport when something stopped them in their tracks. Eric Davis, DVM, MS, DACVS,

DACVIM, and his Rural Veterinary Experience Teaching and Service (RVETS) team spotted a local Nicaraguan man approaching on horseback.

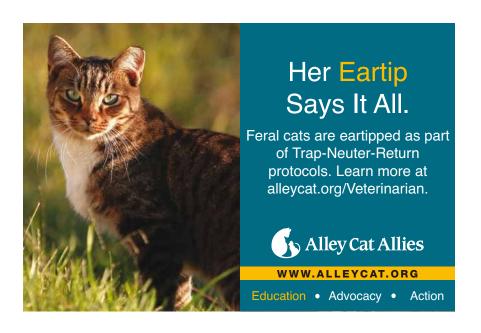
"This fellow shows up on a horse that literally can't breathe," Davis says. "Its nasal passages were completely collapsed—he wanted to know what we could do to help."

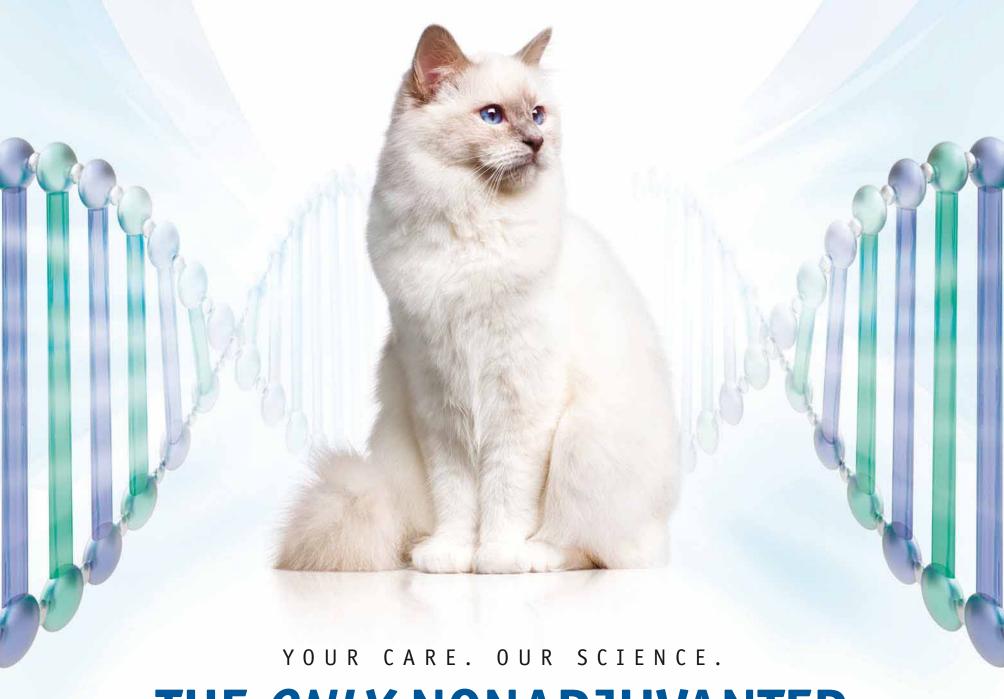
Davis could have politely explained, "I'm sorry, but we really need to go."
However, it's not RVETS' style to leave a horse behind. After digging the proper supplies and equipment out of the van, the volunteer team performed a permanent tracheostomy right then and there.

"The horse got immediate relief," Davis says. "It doesn't solve the long-term problem but until we get a handle on how to treat these fungal infections, the horse is going to live a better life." Cases like that one are the reason Davis started RVETS. He says the nonprofit organization's mission is to provide veterinary care primarily for horses and other equine species in underserved rural areas in the western hemisphere and utilize volunteer veterinarians and veterinary students in the process. It's actually an outgrowth of Rural Area Veterinary Services (RAVS), which Davis developed 12 years ago. (The Humane Society Veterinary Medical Association took over RAVS—see the June 2012 issue to read more.)

RVETS performs more than 800 horse castrations a year—a procedure that otherwise might be done by a local cowboy without anesthesia, Davis says. His team also conducts about 70 cryptorchid surgeries annually, which he says are done in the field. And when Davis says "field"—he literally

>>> Clients travel many miles with their horses to reach an RVETS clinic in Mexico.





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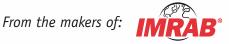


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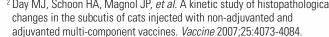






Elsevier; 2012:1163-1205. ² Day MJ, Schoon HA, Magnol JP, et al. A kinetic study of histopathological

¹ Greene CE, Levy JK: Chapter 100 Immunoprophylaxis, in Greene CE (Ed.): Infectious Diseases of the Dog and Cat, 4th ed. Philadelphia, Saunders



³ Data on file with Merial



STETHOSCOPE I Heartbeat of the profession











>>> Top row: Volunteer veterinarian Fiama Gomez De Witt helps a client at an RVETS clinic in Mexico (left). Horses and mules wait for treatment at another clinic in Mexico (middle). Dr. Eric Davis teaches a Nicaraguan veterinarian how to treat a sole abscess (far right).

>>> Bottom row: Volunteer veterinarian Shannon Finley performs an oral exam on a horse in Mexico (left). Volunteer veterinarian Jessica Collier deworms a horse (middle). means a field.

"Regardless of how little the community has, they always have a soccer field," Davis says. "So generally that's where we set up and people bring their horses and burros to us."

In RVETS' target communities, the locals travel around town by way of horseback and rely on large animals for the majority of their livelihood. Davis says it's a dramatically different

culture and economic situation than most Americans know.

"It's striking how many parts of the world just do not have medical care," Davis says. "These countries don't have medical care for humans, and they certainly don't have it for animals."

He says some people ride their horses five hours to reach an RVETS clinic. It isn't uncommon, especially in Mexico, for the RVETS team to treat more than 300 horses in one day. However, Davis doesn't like to get too caught up on the numbers. His focus is on the opportunity to work with veterinarians and veterinary students in different countries across the map.

"On our last trip to Nicaragua, all I did was work with the local veterinarians on treating foot problems," Davis says. "We trimmed an awful lot of horse and mule feet."

The tropical climate of the country causes these large animals to acquire sole abscesses and other foot problems. Davis was able to educate Nicaraguan veterinarians who never received the relevant training in veterinary school.

"I can catch them up to speed—it's those experiences that do the most good, really," Davis says.

He and his crew never show up in a city unannounced. Communities request an RVETS visit and then the volunteer veterinarians and students examine, vaccinate, deparasitize, perform dentistry and correct lay misdiagnoses and mistreatments on horses in the area. The team sets up shop for two weeks at a time and Davis says rarely a month goes by where RVETS doesn't have a mission planned.

"Veterinarians can do a lot of good in the world by providing care to animals that just don't have any other access," Davis says. "I see my job as a cause—not a career." dvm360



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Important Safety Information:

Do not use on sick, weak, or underweight cats. Use only on cats 8 weeks and older. Side effects may include digestive upset and temporary hair loss at application site with possible inflammation. In people, REVOLUTION may be irritating to skin and eyes. Wash hands after use. For more information, see brief summary on following page.

¹VetInsite™ Analytics 2012. Zoetis Data on File.

[†]Ancylostoma tubaeforme.

^{*}Toxocara cati.



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Oklahoma OKs bill allowing horse slaughter for human consumption

Federal legislation would prohibit domestic slaughter and export of live horses for slaughter in Canada and Mexico.

revolution[®]

BRIEF SUMMARY: See package insert for full prescribing information.

CAUTION: US Federal law restricts this drug to use by or on the order of a licensed veterinarian INDICATIONS:

Revolution is recommended for use in dogs six weeks of age or older and cats eight weeks of age and older for the following parasites and indications:

Dogs:

Revolution kills adult fleas and prevents flea eggs from hatching for one month and is indicated for the prevention and control of flea infestations (Chancophalides fells, prevention of heartworm disease caused by Vioridiaria immitis, and the treatment and control of ear mite (Otodectes cynotis) infestations. Revolution also and the treatment of the treatment and control of sarcoptic manage (Sarcoptes scable) and for the control of tick infestations due to Dermacentor variabilis. Cats:

Revolution kills adult fleas and prevents flea eggs from hatching for one month and is inelicated for the prevention and control of flea infestations. (Cleancephaidia)

and is indicated for the prevention and control of their intestations (*Ctenocephanide* fields) prevention of heartworm disease caused by *Dirofilaria immilis*, and the treatment and control of ear mite (*Otodectes cynotis*) infestations. Revolution is also indicated for the treatment and control of roundworm (*Toxocara cati*) and intestinal hookworm (*Ancylostoma tubaeforme*) infections in cats.

Flammable—Keep away from heat, sparks, open flames or other sources of ignition

PRECAUTIONS:

Prior to administration of Revolution, dogs should be tested for existing heartworm infections. At the discretion of the veterinarian, infected dogs should be treated to remove adult heartworms. Revolution is not effective against adult. D. *inmitis* and, while the number of circulating microfilariae may decrease following treatment, Revolution is not effective for microfilariae clearance.

doses were not tested.

ADVERSE REACTIONS:
Pre-approval clinical trials:
Following treatment with Revolution, transient localized alopecia with or without inflammation at or near the site of application was observed in approximately 1% of 691 treated cats. Other signs observed rarely (50.5% of 1743 treated cats and dogs) included womiting, loose stool or diarnhea with or without blood, anorexia, lethargy, salivation, tachypnea, and muscle tremors.
Prost-approval experience:
In addition to the alorementioned clinical signs that were reported in pre-approval calinical trials, there have been reports of pruntus, urticaria, erythema, ataxia, fever and rare reports of death. There have also been rare reports of seizures in dogs. (see WARNINIGS)

of healthy dogs and over 15 different pure and ninzeu nietus or nieturity cass, including pregnant and lactating females, breeding males and females, puppies six weeks of age and older, kittens eight weeks of age and older, and avermecti sensitive collies. A kitten, estimated to be 5–6 weeks old (0.3 kg), died 8 1/2 Sombium Curries, A NULLIN, SISTIMATION TO BE 0—5 Weeks Old (0.3 kg), died 6 1/2 hours after receiving a single treatment of Revolution at the recommended diseage. The kitten displayed clinical signs which included muscle spasms, salivation and neurological signs. The kitten was a stray with an unknown history and was mainourished and underweight (see WARNINGS).

malnourished and underweight (see **WARNINGS**).

DOGS: In safety studies, Revolution was administered at 1, 3, 5, and 10 times the recommended dose to six-week-old puppies, and no adverse reactions were observed. The safety of Revolution administered or Pally also was tested in case of accidental oral ingestion. Oral administration of Revolution at the recommended topical dose in 5 - to 8-month-old beggles did not cause any adverse reactions. In a pre-clinical study selamenciin was dosed orally to be remechin-sensitive collies. Oral administration of 2.5, 10, and 15 mg/kg in this dose escalating study did not cause any adverse reactions, however, eight hours after receiving 5 mg/kg orally, one avermenctin-sensitive collies became abaxio for several hours, but did not show any other adverse reactions after receiving subsequent doses of 10 and 15 mg/kg orally, In a topical safety subty conducted with avermechin-sensitive collies at 1, 3 and 5 times the recommended dose of Revolution, salivation was boserved in all treatment groups, including the vehicle control. Revolution also was administered at 3 times the recommended dose to heartworm infected dogs, and no adverse effects were observed.

usps, and to auverse effects were observed.

CATS: In safety studies, Revolution was applied at 1, 3, 5, and 10 times the recommended dose to six-week-old kittens. No adverse reactions were observed. The safety of Revolution administered orally also was tested in case of accidental oral ingestion. Oral administration of the recommended topical dose of Revolution to cats caused salivation and intermittent vomiting. Revolution also was applied at 4 times the recommended doses to patent heartworm infected cats, and no adverse reactions were observed.

In well-controlled clinical studies, Revolution was used safely in animals receiving other frequently used veterinary products such as vaccines, anthelmintics, antiparasities, antibioties, steroids, collars, shampoor and dips.

STORAGE CONDITIONS: Store below 30°C (86°F).

HOW SUPPLIED: Available in eight separate dose strengths for dogs and cats of different weights. Revolution for puppies and kittens is available in cartons containing 3 single dose tubes. Revolution for cats and dogs is available in cartons containing 3 or 6 single dose tubes.



www.revolutionnet.com

he Oklahoma legislature passed a bill March 26 to allow the slaughter of horses for human consumption in the state, which had been illegal since 1963. Despite opposition from animal welfare groups, the state Senate passed the measure in a 32-14 vote. Republican Gov. Mary Fallin signed the bill into law on March 29.

The passage of the horse slaughter bill, sponsored by Tulsa, Okla., Republican Skye McNiel, approves the processing of horse meat to export for human consumption. Meat processed in-state would be exported internationally, legislators say—the product is most often found on menus in Italy, France and Belgium.

"In Oklahoma—as in other states abuse is tragically common among horses that are reaching the end of their natural lives," said Fallin in a statement from the governor's office. "Many horses are abandoned or left to starve to death. ... For that reason I have signed HB 1999, which would allow the humane, regulated processing of horses."

While two horse slaughter facilities used to operate in the United States one in Illinois and one in Texas—they closed in 2007 after Congress eliminated federal funding for horse meat processing plant inspections. This effectively shut down domestic horse slaughter and drove the market to Mexico and Canada.

However, in 2012—after a federal report concluded that unwanted horses were worse off after the ban than before it—Congress passed an appropriations bill that did not specifically deny the U.S. Department of Agriculture (USDA) funding to carry out inspections at domestic horse processing facilities.



Representative Skye McNiel, R-Tulsa, sponsored the bill in the Oklahoma legislature that allows horse meat to be exported for human consumption.

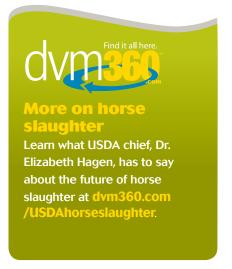
Since then, plans have been introduced in a number of states to reintroduce horse slaughter. Although none has yet resulted in an operational facility, the Humane Society Veterinary Medical Association (HS-VMA) says that corporations in New Mexico, Oklahoma, Iowa, Missouri and Tennessee all have grant applications on file with the USDA for horse slaughter inspections in their state.

In the meantime, legislation has been introduced in the U.S. House and Senate that would explicitly prohibit horse slaughter for human consumption in the United States as well as the export of live animals across the border for slaughter in Canada and Mexico. The bill, titled the Safeguard American Food Exports (SAFE) Act, has bipartisan support in both houses of Congress and is backed by the HSVMA.

According to the USDA, 102,260 horses were euthanized for processing in the U.S. in 2006—the last year horse processing plants were open

for an entire fiscal year. McNiel says 160,000 horses are shipped from Oklahoma to Mexican slaughterhouses every year. Proponents of horse slaughter say it is a humane way to control the population of unwanted or abandoned horses while also providing a monetary response to the cost of caring for and disposing of unwanted animals.

The Association of American Equine Practitioners (AAEP), though it stresses it is not pro-slaughter, does not support current proposed federal legislation to ban horse slaughter for human consumption. The association regards itself as "pro-welfare" of the horse and believes that without longterm placement for affected horses and solutions to the core issues that contribute to the unwanted horse population, humane euthanasia and processing for human consumption may be an undesirable necessity. "If a horse owner is not able or willing to provide humane care, the AAEP believes that euthanasia at a processing facility is a humane alternative to a life of suffering, inadequate care and possibly abandonment," a statement from the organization reads. dvm360



Texas court rejects emotional damages case

n a decision that leaves the legal landscape little changed, the Texas Supreme Court on April 5 ruled against Jeremy and Kathryn Medlen's claim to emotional damages as a result of losing their dog, Avery, in 2009.

The state high court's opinion, written by Justice Don Willett, reads, "We acknowledge the grief of those whose companions are negligently killed. Relational attachment is unquestionable. But it is also uncompensable. We confirm our long-settled rule."

The court's precedent was established in an 1891 case that categorizes dogs as personal property, which eliminates the possibility of non-economic damages rooted in subjective, emotional feelings. "The term 'property' is not a pejorative but a legal descriptor, and its use should not be misconstrued as discounting the emotional attachment that pet owners undeniably feel," Willett's opinion states. "Nevertheless, under established legal doctrine, recovery in pet-death cases is, barring legislative reclassification, limited to loss of value, not loss of relationship."

The Medlens' case began when Avery escaped from their backyard and was picked up by local animal control officers. When Jeremy Medlen went to retrieve Avery, he didn't have enough money to pay the fee.

He was told he could return by June 10 with the money and the dog would be held with a tag on his cage notifying shelter employees not to euthanize the dog. On June 6, shelter worker Carla Strickland mistakenly placed Avery on a list to be euthanized the following day. When the Medlens returned to collect Avery, they found out he had been euthanized.

The Medlens sued Strickland, requesting intrinsic and sentimental value for the dog. However, when the case went to trial court, the judge ruled to dismiss, saying the Medlens hadn't stated "a claim for damages recognized as law." The Medlens appealed this ruling to the Second District Court of Appeals, which reversed the trial judge's decision and remanded the case back to trial court. Strickland appealed that decision in January 2012 to the state's Su-

preme Court, asking it to reverse the appellate court decision and dismiss the case from trial court.

This decision comes after New Jersey and California both recently saw cases that sought emotional damages for pet loss or damage, with New Jersey

sey ruling that animals were property and owners couldn't claim emotional damages, while a California appeals court upheld \$50,000 in emotional damages (although the California verdict was based not on negligence but trespassing). dvm360



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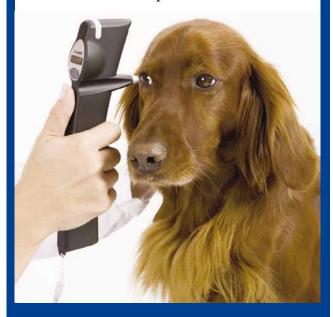


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NEWS | Veterinary headlines

Veterinary professor charged with felony animal neglect sentenced on lesser charge

Patricia Schenck avoids jail time but incurs more than \$10,000 in fines and restitution. By Julie Scheidegger

harged with felony animal neglect in December 2012, Patricia Schenck, DVM, PhD, assistant professor at Michigan State University's College of Veterinary Medicine, pleaded no contest to a lesser charge in Clinton County District Court March 15. Schenck was found guilty on a misdemeanor charge of malicious destruction of personal property between \$200 and \$1,000.

Judge Richard Wells sentenced Schenck the same day to two years' probation and more than \$10,000 in fines, costs and restitution. Although Schenck avoided jail time, she will pay \$1,475 in court costs and fines, \$10,000 to the boarding facility Animal Lodge, \$1,200 to the Humane Society and \$800 to the Clinton County Sheriff's Department. Authorities seized 17 dogs and two cats in poor condition from Schenck's home in Olive Township, Mich., on Dec. 12, 2012. One dog was

euthanized; the rest were taken to local animal shelters. Schenck was ordered not to have any animals in her possession when charged, but an agreement was apparently made with the judge in chambers for Schenck to possibly regain possession of some animals in the future.

The university confirmed March 22 that Schenck has not returned to work. She continues to be suspended with pay from her position as section chief of the Endocrine Diagnostic Section of the College of Veterinary Medicine. Schenck did not treat animals at her job. dvm360



N.y. veterinarian, assemblyman caught with marijuana

Stephen Katz, DVM, 59, of Mohegan, N.y., who is a state assemblyman for the 99th New York Assembly District, has been arrested on charges of unlawful possession of marijuana during a traffic stop on the New York State Thruway in the town of Coeymans, N.y.

While northbound on I-87, Katz was stopped by a New York state trooper for traveling at 80 mph in a 65 mph speed zone. After noting a distinct odor, the trooper found Katz in possession of a small bag of marijuana, says Frank Bandiero, N.Y. State Police trooper. Katz was later released on a ticket to appear in the Town of Coeymans Court.

According to Katz's state assembly web page, he earned his VMD from the University of Pennsylvania in 1984 and a bachelor of science in animal science from Cornell University in 1976.

Katz has been a practicing veterinarian for 21 years, the website reports. In 1995, he and his wife opened Concourse Animal Hospital on the Grand Concourse in the Bronx. dvm360





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AAHA says hospitals can grow despite economy

Data suggests practices that focus on clients and preventive care could bring veterinary profession an additional \$350 million.

he American Animal Hospital Association (AAHA) says the economy is no longer an excuse for underperforming veterinary hospitals. As stated in the organization's State of the Industry address presented at the AAHA Yearly Conference this March in Phoenix, veterinary hospital growth is rooted in client relationships—not hospital size, geographic location or the economy.

Data was gathered in a study by AAHA and IDEXX Laboratories from hospitals that demonstrated year-overyear revenue growth greater than 10 percent—along with those with declining revenue—to understand what factors led to success. The results showed that the single most important factor differentiating the successful from the failing practice was a focus on strong, lasting client relationships. "Overall, hospitals in this study that focused on

"Overall, hospitals in this study that focused on building strong client relationships were more than twice as likely to be 'Growers' versus 'Decliners." —Kate Spencer, communications manager, AAHA

building strong client relationships were more than twice as likely to be "Growers" versus "Decliners," says Communications Manager Kate Spencer in an AAHA release.

Overall, data showed an average growth of 5.6 percent in hospital revenue for the profession from 2011 to 2012, and approximately 25 percent of hospitals achieved year-over-year growth greater than 10 percent in spite of the economic downturn and other challenges. The AAHA State of the Industry address highlighted five factors the organization believes are critical for hospital revenue growth:

• focusing on clients

- driving preventive care
- leveraging technology to drive preventive care
- setting goals and measuring business
- communicating the value of higher standards.

"It is clear from the data that the first key to growth is focusing on strengthening your client relationships," says Michael Cavanaugh, DVM, DABVP, AAHA's executive director. "For years, AAHA has focused on the importance of moving from a 'veterinariancentered practice' to a 'client-centered practice.' This data shows that a clientcentric approach to veterinary medicine is key to success."

In the State of the Industry study, both Growers and Decliners were asked what they believed was most important to determine revenue growth. "Top responses from Growers all focused on their clients, including how they built their local reputation through client referrals and how they communicated with their clients," the AAHA release states. "Growers demonstrated they could grow revenue whether or not the local economy was strong." Decliners, on the other hand, focused on medical services and the health of the economy.

Another key factor in growth is securing regular preventive care visits, the study found. Growers send reminders, provide pre-visit education content to clients and provide clear evidence of the value of preventive care by communicating throughout the physical examination and sharing post-visit report cards and diagnostic results. AAHA also believes "forward booking" is essential for driving preventive care visits and client compliance. Its data shows that only 5 percent of preventive care visits are forward booked at veterinary hospitals. According to AAHA and IDEXX, increasing forward-booking appointments to 10 percent could generate approximately \$350 million in addi-

5 factors critical for growth

- » focusing on clients
- » driving preventive care
- » leveraging technology to drive preventive care
- » setting goals and measuring business
- » communicating the value of higher standards

tional preventive care revenue for the veterinary profession.

"When forward booking is combined with an effective automated client communication and reminder strategy, the estimated impact grows to \$450 million," the AAHA release states. "That same estimate approaches \$1 billion under the assumption that having patients coming in for regular preventive care visits drives opportunities for additional visits such as dental cleaning." AAHA says those estimates translate into \$40,000 in additional revenue, or 3 percent additional growth, for the average hospital.

The data suggests that it's an easy conclusion for veterinary hospitals to focus on what the team can control, like its client relationships, instead of an economy it can't. "These findings make sense—it is the client that makes the decision to bring the pet in, it is the client that has to pay the bill, and it is the client that has to comply with the recommendations," Cavanaugh says. "What's most important for growth is the ability of the veterinary team to communicate the value of the services in language that the client can understand." dvm360



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- » Kills ticks on DOGS OR CATS within 48 hours and repels and kills reinfesting ticks in as quickly as 6 hours
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Data on file.



serestc

Pethealth plans to acquire certain assets of PurinaCare

Pethealth Inc., through its subsidiary PTZ Insurance Agency, is set to acquire certain assets of Purina-Care Insurance Services. Pethealth will obtain Purina's pet insurance operations relating to the administration of Purina's pet insurance program and the rights to subsequent policyholder renewals.

The acquisition agreement's consideration was announced to be a maximum of \$800,000 for approximately 12,000 current policyholders. According to a release by Pethealth, the all-cash transaction will be financed through a

three-year loan agreement with a six-month fixed interest rate plus 2.25 percent. "Until all the closing conditions are satisfied or waived, there can be no assurances that this transaction will be completed," the release states. "If all closing conditions are satisfied, closing is

expected to occur on or before May 1, 2013."

Pethealth, a leading provider of medical insurance for dogs and cats to pet owners, operates in the United States, Canada and the United Kingdom and is based in Oakville, Ontario. dvm360

Ban on Purina horse feed partially lifted

The California Horse Racing Board has partially lifted its ban on Purina sweet feed products manufactured at a Turlock, Calif., plant after zilpaterol, a banned substance in horse racing, was found in a number of Purina Animal Nutrition sweet feed products.

The racing board is now allowing feed produced on or after March 27 at the Turlock plant on California racetracks. However, Purina or Country Acres feed produced between Feb. 14 and March 26 at the Turlock plant should not be fed to horses competing at events where drug testing occurs.

Independent testing and Purina's research led the board to zero in on the source of contamination. "Our investigation has revealed that small amounts of zilpaterol were included in a single ingredient supplied by a vendor to the Turlock plant in February," a statement from Purina reads. "Purina and Country Acres products produced at any other Purina plant were not impacted and can be used without restriction."

Purina recommends that horse owners feeding Purina or Country Acres product made at the Turlock plant to refer to the lot number on the bottom of the feed bag to determine if it was produced between Feb. 14 and March 26. Products manufactured at Turlock with have the letters "TRL" in the date code. Date codes are formatted by year ("3" for 2013), month, day, plant code and shift code. For example: "3MAR-15TRL1." dvm360

Elsewhere in CVP360 Eight Mid-Atlantic states agree on uniform rules for medications allowed in racehorses. See page 46.





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NEWS | Academics

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CSU professor receives international award for scientific achievement

Veterinarian recognized for clinical work in liver disease, gastroenterology and endoscopy.

avid Twedt, DVM, DACVIM, a professor of clinical sciences at Colorado State University (CSU) Veterinary
Teaching Hospital, was recently honored with the World Small Animal Veterinary Association (WSAVA) International Award for Scientific Achievement at the WSAVA conference in Auckland, New Zealand, according to a statement issued by the university. The award recognizes the work of a veterinarian in advancing the profession's knowledge of companion animal disorders.

In addition to his role as a professor at CSU, Twedt is also the director of the Veterinary Endoscopy Teaching Center and has been involved in the postgraduate clinical training of more than 140 interns and residents at the university. He's a past president of the American College of Veterinary Internal Medicine and the Comparative Gastroenterology Society, as well as a contributor to Veterinary Medicine magazine and speaker at the CVC veterinary conferences. He is considered an international expert in gastroenterology and hepatic diseases of small animals and has provided more than 400 continuing education programs to graduate veterinarians in the United States and abroad. He has also written a number of articles, book chapters and abstracts.

"Dr. Twedt has a long and distinguished career of teaching veterinary students and advancing veterinary medicine. I can think of no one more deserving of this prestigious award. He is one of the faculty who make CSU great," said Chris Orton, DVM, interim chair of the Department of Clinical Sciences at the university's College of Veterinary Medicine and Biomedical Sciences, in a statement.

In addition to the WSAVA International Award for Scientific Achievement, Twedt has received the Distinguished Contemporary Faculty Award, the Norden-Pfizer Distinguished Teacher Award and the Innovative



Dr. David Twedt is highly regarded as an expert in gastroenterology, endoscopy and hepatic diseases of small animals. He has shared his wealth of knowledge with more than 140 interns and residents at Colorado State University.

Instructional Methodology Award. In 1999, the Colorado Veterinary Medical Association honored him with the Outstanding Faculty Award, and in 2000, he was selected as the North American Veterinary Conference Small Animal Program Speaker of the Year. He has also been awarded with Iowa State University's Stange Award for Meritorious Service, the highest honor bestowed upon alumni of ISU's College of Veterinary Medicine. dvm360

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All dogs should be tested for heartworm infection before starting a preventive program. Following use of IVERHART MAX Chewable Tablets, digestive and neurological side effects have rarely been reported. Use with caution in sick, debilitated or underweight animals and dogs weighing less than 10 lbs. See brief summary on page 22 for additional information.





U.S. representatives reach across the aisle to form veterinary caucus

Politicians to give bipartisan support to veterinary health issues.

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

BRIEF SUMMARY: Please consult package insert for complete product information.

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

WARNINGS: For use in dogs only. Keep this and all drugs out of reach of children. In safety studies, testicular hypoplasia was observed in some dogs receiving 3 and 5 times the maximum recommended dose monthly for 6 months (see Animal Safety). In case of ingestion by humans, clients should be advised to contact a physician immediately. Physicians may contact a Poison Control Center for advice concerning cases of ingestion by humans.

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

All dogs should be tested for existing heartworm infection before starting treatment with IVERHART MAX Chewable Tablets, which are not effective against adult *D. immitis.* Infected dogs should be treated to remove adult heartworms and microfilariae before initiating a heartworm preventions.

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

ADVERSE REACTIONS: In clinical field trials with ivermectin/ pyrantel pamoate, 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 ivermectin: depression/lethargy, vomiting, anorexia, diarrhea, mydriasis, ataxia, staggering, convulsions and hypersalivation.

ANIMAL SAFETY: Studies with ivermectin indicate that certain dogs of the Collie breed are more sensitive to the effects of ivermectin administered at elevated dose levels (more than 16 times the target use level of 6 mcg/kg) 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. No signs of toxicity were seen at 10 times the recommended dose (27.2 mcg/lb) in sensitive Collies. Results of these studies and bioequivalence studies and bioequivalence studies and products in dogs, including Collies, when used as recommended by the label.

In a laboratory safety study, 12-week-old Beagle puppies receiving 3 and 5 times the recommended dose once weekly for 13 weeks demonstrated a dose-related decrease in testicular maturation compared to controls.

HOW SUPPLIED: IVERHART MAX Chewable Tablets are available in four dosage strengths (see Dosage section) for dogs of different weights. Each strength comes in a box of 6 chewable tablets and in a box of 12 chewable tablets, packed 10 boxes per display box.

STORAGE CONDITIONS: Store at controlled room temperature of 59° - 86° F (15° - 30° C). Protect product from light.

For technical assistance or to report adverse drug reactions, please call 1-800-338-3659.

Manufactured by: Virbac AH, Inc. Fort Worth, TX 76137

NADA 141-257, Approved by FDA IVERHART MAX is a registered trademark of Virbac Corporation in the US and a trademark of Virbac Corporation in Canada.

Rep. Kurt Schrader,
D-Ore., and U.S. Rep.
Ted Yoho, R-Fla., both veterinarians
before entering politics, have united
to form the first bipartisan Veterinary
Medicine Caucus in the U.S. House of
Representatives. The caucus reportedly
aims to increase awareness of the role
veterinary medicine plays in research,
public health, animal health and welfare, food safety and the economy.

"People have no idea what a major role veterinarians play in advancing the health of both animals and people," Yoho says in a letter drafted by the caucus to fellow representatives. "This caucus will be a great way to spread the word among legislators and other decision makers who have the power and influence to make a difference." A freshman House Representative, Yoho won his seat with zero political experience but as a veterinarian and longtime business owner with a conservative platform.

An organic farmer and veterinarian for more than 30 years, Schrader was elected to Congress in 2008 after serving in Oregon's state legislature since 1996. "It is great to have a fellow veterinarian and partner on the other side of the aisle in Rep. Yoho, who understands and shares the priorities of the veterinary community," Schrader says in the letter.

Schrader recently introduced House



Rep. Kurt Schrader



Rep. Ted Voho

"People have no idea what a major role veterinarians play in advancing the health of both animals and people."

—U.S. Rep. Ted Yoho

Resolution 1124, the Veterinary Medicine Loan Repayment Program Enhancement Act, in the House. The legislation provides a federal income tax exemption for financial awards received under the Veterinary Medicine Loan Repayment Program, which are currently taxed at 39 percent. Yoho is a cosponsor of HR 1124.

"Getting rid of the tax makes the program more effective without raising the cost," he says in an e-mail to *dvm360*. "It frees up 39 percent of the money in the program so it can

actually be lent to veterinary students looking to serve underserved communities. Dr. Schrader found a great way to make the program more effective and helpful to students without raising the cost. It's not often you can do that in Washington."

Yoho and Schrader have agreed only twice to date as colleagues in the 113th Congress. Although Schrader considers himself a conservative Democrat (he serves as co-chair for communications for the Blue Dog Coalition), he and Yoho don't agree politically—on much. Schrader is pro-choice and supports the Affordable Healthcare Act. Yoho won the support of Tea Party enthusiasts with conservative values and a vow to repeal "Obamacare." Yet with veterinary concerns binding their efforts, the bipartisan colleagues will weigh in as a caucus on legislation like the Farm Bill that has divided Congress.

Yoho says he respects Schrader as a friend and a colleague. "Even if we don't agree on policy, I respect his views and his dedication to this job. We could use a little more of that in Congress. The main reason we created the Veterinary Medicine Caucus is educational. If we can help members of Congress see where veterinary medicine fits into the bigger picture—from public health to education—we can have a positive impact on policy." dvm360

Janet Donlin named CEO of AVMA PLIT

he AVMA PLIT, a group that assists members of the American Veterinary Medical Association (AVMA) with malpractice insurance and other business-related protections, has announced Janet Donlin, DVM, as chief executive officer.

Donlin took over the posi-

tion April 1 from Rodney Johnson, DVM, who will retire this summer. "Given Dr. Donlin's extensive management and leadership experience in the veterinary profession and at AVMA, she will provide the strategic focus we are seeking," said PLIT chairman R.C. Ebert, DVM, in a prepared state-

ment. "We are excited to have her join us." Donlin will be based at PLIT headquarters in Chicago.

Most recently, Donlin was chief veterinary officer at Hill's Pet Nutrition in Topeka, Kan., where she managed global veterinary teams and helped develop products for the veterinary profession.

Donlin graduated from the University of Minnesota with a doctorate of veterinary medicine and a bachelor's in medical technology. She began her career in a mixed animal practice, then taught at the University of Minnesota, and has served in various roles in organized veterinary-medicine as well. dvm360

Alabama veterinarians take sides on nonprofit spay-neuter clinics

Bills introduced in state legislature would determine extent of nonprofit clinic limitations. *By Julie Scheidegger*

he young legislative session in Alabama has already seen three "spay-neuter" bills introduced, continuing the contentious debate begun during last year's session surrounding the role of low-cost spay-neuter clinics in the state.

Last year's legislative session sparked a clash between non-profit clinics and the Alabama State Board of Veterinary Medical Examiners (ASBVME). The state board's public opposition to the nonprofit clinics deteriorated into what Alabama Veterinary Medical Association (ALVMA) President William Allen, DVM, called a "PR nightmare" for the state's veterinary community.

Faced with restoring the public image of the state's veterinarians, the ALVMA has abandoned its once well-intention neutrality. It's now opposing the state board in support of a bill that he hopes private veterinarians and non-profit entities can agree on.

Taking sides

Senate Bill 25, introduced by Republican state Sen. Paul Bussman, a practicing dentist, proposes to make an exception in the state's veterinary practice act—which currently does not allow nonveterinary ownership of veterinary practices—for nonprofit spay-neuter clinics. It is a direct response to last year's House Bill 156, which died due to lack of compromise and eventually inaction by the legislature. The state veterinary board and the Alabama Veterinary Practice Owners Association (AVPOA), formed last year in opposition to HB 156, endorse the new Senate bill.

"Senator Bussman has introduced this bill in an effort to allow the spay-neuter clinics to proceed with their moral mission of providing donor-subsidized spays and neuters to underserved pet owners," says Robert Pitman, DVM, president of the state veterinary board, in a letter to state veterinarians. "He has also addressed the regulatory responsibilities of the ASBVME as mandated by the Alabama legislature."

SB 25 enacts measures to ensure extensive board oversight of nonprofit clinics with additional inspections, reports and license requirements, and it limits the clinics to spay-neuter services only. It also prohibits nonprofit clinic veterinarians from possessing any drugs or equipment unrelated to the spay-neuter process.

"The ASBVME unanimously endorses SB 25 as a fair com-



Dr. William Allen

promise to all parties," Pitman says in his letter. However, the U.S. Federal Trade Commission (FTC) may not

feel the same way, even though the bill provides the veterinary ownership exception the FTC has called for in the past.

Earlier this year Allen asked an attorney to review and comment on SB 25—specifically whether the provisions of the bill might violate federal antitrust law. Gregg Brantley Everett, an attorney with Gilpin Givhan law firm in Montgomery, responded. "Unfortunately, SB 25 ... substantially restricts the ability of spay and neuter clinics to use the new exemption because of all the additional licensing requirements," Everett told Allen in a January letter. "It should also be noted

that the constitutionality of SB 25 is highly questionable."

Everett's conclusion? "The State Board of Veterinary Medical Examiners could be investigated and charged by the FTC if Senate Bill 25 passes as written and the board tries to enforce it."

Allen has written to ALVMA members stating that the association's executive board cannot support SB 25 without specific amendments. The ALVMA believes that minimum standards of care and public health concerns demand nonprofit veterinarians be able to treat parasites, administer rabies vaccinations, and provide antibiotics and pain medication for conditions unrelated to sterilization as they deem appropriate. SB 25 would not allow for those treatments.

The ALVMA also disagrees with the need for additional board oversight. "... discriminatory language against veterinary colleagues who work in the spay-neuter clinics regarding additional inspections and reporting was recommended for removal from the bill," Allen writes.

The result of the ALVMA's requested amendments (which were not accepted by the Senate bill's sponsor) is House Bill 188, sponsored by Alabama Speaker of the House Mike Hubbard, a Republican. "The bill restricts the activity of the spay-neuter clinics but refrains from treating the spay-neuter veterinarians as if they were second-class veterinarians just because of where they practice," Allen says in his letter. "They are required to be licensed the same as you and I are obligated by that license to provide a certain level of standard of care."

Colleagues divided

Contention over the issue seems to have shifted: It's no longer private practices against nonprofit entities but veterinarians against veterinarians. "They, through their irrational, self-serving practices, have taken up an adversarial position against the ASBVME which is designed to keep the practice of veterinary medicine of the highest quality," says Buddy Bruce, president of the Alabama Veterinary Practice Owners Association, in a letter to the state's veterinarians. He encourages the veterinary community to reject HB 188 and the ALVMA and join him in support of SB 25.

However, both the practice owners association and ALVMA support means testing as a way to limit services to people who can't afford spay-neuter services, though no bill presently contains language calling for it. The two groups believe that non-profit clinics enjoy an unfair tax

"It is fundamentally unfair for tax-exempt clinics to compete with tax-paying hospitals, and tax-exempt entities should require means testing to determine eligibility."

> —Alabama Veterinary Medical Association

advantage. "It is fundamentally unfair for tax-exempt clinics to compete with tax-paying hospitals, and tax-exempt entities should require means testing to determine eligibility," the ALVMA position statement reads. And from the practice owners group: "The ALVPOA feels certain that if 'means testing' were included with either bill that very few, if any, veterinarians in the state would have an issue with any services provided by the 501(c)3s," Bruce says.

Both SB 25 and HB 188 have passed through their respective legislative committees. dvm360



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Study: Cat obesity ballooning

Survey sheds light on soaring rate of overweight pets in the U.S.

he number of overweight cats is at an all-time high, according to the sixth annual National Pet Obesity Awareness Day Survey conducted by the Association for Pet Obesity Prevention (APOP). The organization found 58 percent of cats to be overweight or obese, as reported by their veterinarians. This is up 5 percent from 2010 survey results, which reported that 53 percent of cats were overweight or obese.

The current study also shows that 53 percent of dogs are overweight or obese. That equals approximately 80 million U.S. cats and dogs at increased risk for weight-related disorders such as diabetes, osteoarthritis and many cancers, researchers say.

"Pet obesity remains the leading health threat to our nation's pets," says APOP founder and dvm360 contributor Ernie Ward, DVM. "We continue to see an escalation in the number of overweight cats and an explosion in the number of type 2 diabetes cases."

New York-based veterinary endocrinologist and APOP board member Mark Peterson, DVM, DACVIM, agrees. He says the soaring rate of feline and canine obesity is taking a toll on animal health. "There's a vast population of overweight cats and dogs facing an epidemic of diabetes. The best preventive measure a pet owner can make is to keep their dog or cat at a healthy weight," Peterson says.

The biggest problem? Many pet owners don't recognize that their pet is overweight, says Joe Bartges, DVM, PhD, DACVIM, DACVN, of the University of Tennessee's College of Veterinary Medicine. In the survey, approximately 45 percent of cat and dog owners assessed their pet as having a normal body weight when the veterinarian assessed the pet to be overweight. Ward calls the phenomenon of incorrectly evaluating an overweight pet as normal "the fat gap."

"The disconnect between reality and what pet parents think is obese makes having a conversation with their veterinarian more challenging," Ward says. "Many pet owners are shocked when their veterinarian informs them their pet needs to lose weight. They just don't see it."

In the study, certain breeds showed greater risk for excess weight. Veterinary healthcare providers classified 59 percent of Labrador retrievers and 63 percent of golden retrievers surveyed as overweight or obese. Steve Budsberg, DVM, MS, DACVS, of the University of Georgia says he's concerned about the development of weight-

A chunk of data

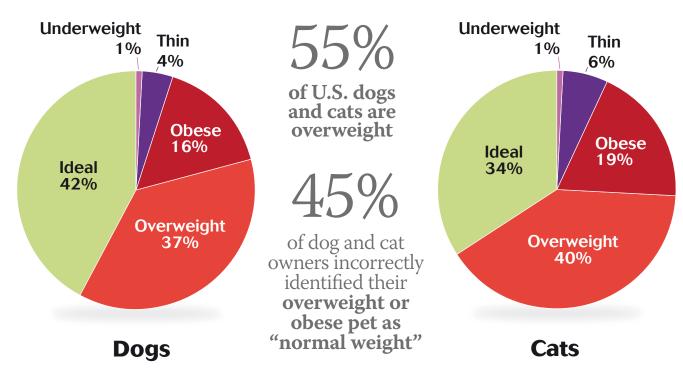
The 2012 National Pet Obesity
Awareness Day Survey analyzed
data from 121 veterinary clinics
in 36 states. In the study, 1,485
dogs and 450 cats were assessed.
Labrador retrievers were the
most common purebreed in the
study—59 percent were classified
as overweight or obese. German
shepherds had the lowest purebreed obesity rate of 2 percent.

related musculoskeletal conditions.

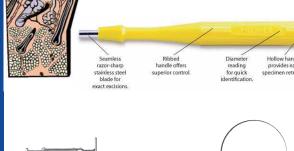
"Once again, our data shows that obesity is rampant and we are certainly setting up more and more dogs and cats for joint problems during their lives," Budsberg says. "This results in hundreds of millions of dollars in medical bills and countless surgical procedures for weight-related conditions. I find this extremely frustrating—this disease is easily treatable and even simpler to prevent."

Ward also believes that there is a connection between pet and child-hood obesity rates. Clients need to encourage children to put down their video games and pick up the dog leash to go for a walk, he says. dvm360

Survey says







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NEWS | Education

Courses in South Africa let students, veterinarians learn about conservation

'Vets Go Wild' led by game park's resident veterinarian.

hands-on course lets veterinarians and veterinary students travel to South Africa's Eastern Province to work with William Fowlds, resident veterinarian at the Amakhala game reserve. "Vets Go Wild" is in its seventh year, offering 16day course modules that accommodate up to 15 students each. The five offered courses count toward students' extramural study (EMS) requirements.

This year students from the United States

will also join participants from Australia, the United Kingdom and France in the Vets Go Wild program. Texas A&M College of Veterinary Medicine and Biomedical Sciences recently sent students for their first course this year. The parks that Vets Go Wild participants work with run intensive and carefully orchestrated monitoring and game introduction programs that give students a hands-on conservation experience.

Participating parks, such as Addo National Park where

Fowlds assists with conservation efforts, allow students to work with elephants, rhinos, buffalo, lions and leopards. Students also get experience in game capture projects, animal diet analysis, predator monitoring, rhino management, microchip implantation, wildlife identification and tracking, diseases and reproduction.

"Besides just dealing with regular veterinary issues, Vets Go Wild attempts to tackle conservationbased issues—the course has been designed to get under the skin of some of the real issues that threaten our wildlife and nature as a whole," Fowlds says in a release.

Fowlds' name found its way into headlines after he rescued a white rhino left for dead after her horn







>>> William Fowlds, a veterinarian in South Africa who directs the "Vets Go Wild" educationa program, rescued a young female white rhino named Thandi earlier this year after poachers removed her horn and left her for dead (top photo). Under Fowlds' leadership, Thandi received emergency veterinary care (above left). Three months after the incident, Thandi had almost fully

was hacked off by poachers. The young female rhino, named Thandi, was given little hope of survival. Fowlds pioneered a rescue operation that saved Thandi (see photos).

The 16-day veterinarian module is also available to veterinary technicians. The specially designed modules for practicing veterinarians

> allow them to experience a behind-the-scenes look at a wildlife game reserve. Addo National Park also incorporates a marine reserve, so the module can offer participants the opportunity to learn more about marine life along the coast of South Africa as well. For more information, go to worldwideexperience .com. Read Fowlds' blog at williamfowldsdaytoday .blogspot.com. dvm360





"We should talk about Buddy's weight ..."

"I didn't realize there was a problem."

"Ideally, he should weigh around ..."

"He's always been stockier than other Labs."

"You should be able to feel his ribs."

"I don't want to starve him."

When words fail, numbers talk

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Developed and validated in partnership with veterinarians at the University of Tennessee

Ross University anticipates \$31 million expansion

oss University School of Veterinary Medicine is spending more than \$31 million to expand its St. Kitts campus during the next five years. Officials broke ground on the project March 14.

The expansion includes a facilities and pasture management service center, a wellness and student center, expansion of the preparatory school and several other projects, including a full campus electrical

infrastructure upgrade. "The electrical upgrade should assist in controlling power surges and outages, as well as support increasing demand of power supply as we expand our campus facilities and technology," says Jodi Peeler, assistant dean for external

> The expansion also includes the purchase of a 24-acre parcel of land, which the school had previously leased from the local government. Ross University purchased the land for \$6 million. The agreement to spend more than \$25 million on the expansion of campus facilities was part of the school's partnership agreement renewal with the Federation of St. Kitts and Nevis.

relations and communications.

"The drive behind the planned expansion is the desire to further

RUSVM's development into an innovative educational program with focus on our students and their program so they can become leaders in veterinary training worldwide," says Peeler.

Ross University School of Veterinary Medicine has been in the spotlight recently since a February New York Times article focused on student debt in the veterinary profession. Hayley Schafer, a primary source in the article, credited Ross University with her \$312,000 of student loan debt. Ross is one of the most expensive veterinary schools to attend when cost of living and commuting expenses are factored in.

Peeler says the expansion should be complete in the next five years. dvm360



PHOTO COURTESY

WVC names David Little new CEO; Guy Pidgeon to retire in June

he Western Veterinary Conference (WVC) recently announced David Little as new chief executive officer. Little replaces retiring CEO Guy Pidgeon, DVM, DACVIM, who served in the position since 2007.

Little joined the WVC executive staff with a dual role in 2009 as assistant CEO and director of WVC's Oquendo

Center for Clinical Education.



He says he is now ready to assume his new role. "I am extremely excited to assume leadership of Western Veterinary Conference at this time," Little said in a prepared statement. "WVC is an outstanding organization, with a tremendous board and a hardworking and dedicated staff."

Little has been actively involved in event and meeting planning, according to the WVC, including service with the American Veterinary Medical Association Convention and

Meeting Planning Division and the board of directors for the Professional Convention Management Association. "Little has provided highly effective, multifaceted direction for Western Veterinary Conference and particularly for the Oquendo Center through strategic planning and collaborative management of staffing, events, activities, and services," a WVC release said.

Pidgeon will remain as CEO emeritus through June 2013 to work with Little through the transition. "I am de-



Guy Pidgeon

lighted to leave the organization in the hands of such a capable Board and executive crew," Pidgeon says. "The talent represented in new CEO David Little, Manolita Moore as annual conference direc-

tor, and Don Waldron as chief medical officer, as well as the dedicated support staff, assures a bright, exciting future for the conference and the Oquendo Center." dvm360



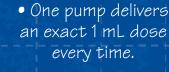
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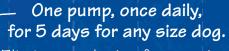
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EASOTIC® Suspension is contraindicated in dogs with known or suspected hypersensitivity to corticosteroids, imidazole antifungals, or aminoglycoside antibiotics. Do not use in dogs with known tympanic membrane perforation. The safe use of EASOTIC Suspension in dogs used for breeding purposes, during pregnancy, or in lactating bitches, has not been evaluated. See brief summary for additional product information.

See brief summary on page 30

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For Otic Use in Dogs Only

CAUTION

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

BRIEF SUMMARY: Please consult package insert for complete product information.

INDICATIONS

EASOTIC® suspension is indicated for the treatment of otitis externa in dogs associated with susceptible strains of yeast (Malassezia pachydermatis) and bacteria (Staphylococcus pseudintermedius).

CONTRAINDICATIONS

Do not use in dogs with known tympanic membrane

EASOTIC® suspension is contraindicated in dogs with known or suspected hypersensitivity to corticosteroids, imidazole antifungals, or aminoglycoside antibiotics.

WARNINGS

<u>Human Warnings</u>: Not for use in humans. Keep this and all drugs out of reach of children.

Humans with known or suspected hypersensitivity to hydrocortisone, aminoglycoside antibiotics, or azole antifungals should not handle this product.

Animal Warnings: As a class, aminoglycoside antibiotics are associated with ototoxicity, vestibular dysfunction and renal toxicity. The use of EASOTIC® suspension in a dog with a damaged tympanic membrane can result in damage to the structures of the ear associated with hearing and balance or in transmission of the infection to the middle or inner ear. Immediately discontinue use of EASOTIC® suspension if hearing loss or signs of vestibular dysfunction are observed during treatment (see ADVERSE REACTIONS).

PRECAUTIONS

Do not administer orally

Concurrent administration of potentially ototoxic drugs should be avoided.

Use with caution in dogs with impaired hepatic or renal function (see $\mbox{{\bf ANIMAL SAFETY}}).$

Long-term use of topical otic corticosteroids has been

associated with adrenocortical suppression and iatrogenic hyperadrenocorticism in dogs (see ANIMAL SAFETY).

The safe use of EASOTIC® suspension in dogs used for breeding purposes, during pregnancy, or in lactating bitches, has not been evaluated.

ADVERSE REACTIONS

In a field study conducted in the United States, there were no adverse reactions reported in 145 dogs administered EASOTIC® suspension.

In foreign market experience, reports of hearing loss and application site erythema have been received. In most reported cases, the hearing loss and erythema were transient and resolved with discontinuation of EASOTIC® suspension.

To report suspected adverse drug events, or for technical assistance contact Virbac at 800-338-3659.

ANIMAL SAFETY

Avail administration of EASOTIC® suspension to 12 week old Beagle dogs at 1, 3, and 5 times the recommended dose (1 mL/ear/day) for 15 days (three times the treatment length) was associated with alterations of the hypothalamic-pituitary-adre nal axis as evidenced by the ACTH stimulation results. Other indings considered to be related to treatment include the devel-opment of aural hyperemia; the presence of renal tubular crys-tals and possibly renal tubular basophilia and atrophy; elevated liver weights; the development of otitis externa and media; and elevations in alanine aminotransferase, alkaline phosphatase, total protein, albumin, and cholesterol levels.

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

HOW SUPPLIED: EASOTIC® suspension is supplied in a polyethylene canister, with a soft applicator canula.

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Rodenticide manufacturer defies EPA on anticoagulants

> Continued from page 1

pets and wildlife," toxicology expert Ahna Brutlag, DVM, MS, a diplomate of the American Board of Toxicology and assistant director of veterinary services for Pet Poison Helpline, says she'd rather contend with d-Con, all things considered. "I'd like to see longacting anticoagulants kept on the market for in-home use for consumers. I think that is the safest option in regards to pets and wildlife exposure," Brutlag says.

The new breed of rodenticides spawned by the EPA prohibition use the neurotoxin bromethalin. The rapid onset of bromethalin gives veterinarians little time to intervene if a pet has ingested it. And unlike anticoagulants, which can be treated with vitamin K, bromethalin has no diagnostic test and no antidote.

D-Con says on its website that the use of more potent rodenticides such as bromethalin could "increase the risk of serious harm and potentially death if these products are used improperly." The company also says using less-effective products would impact public health by making rodent infestations more difficult to control. "EPA's actions would leave consumers with fewer alternatives which, ironically, puts the public health and environment at greater risk," says Hal Ambuter, Reckitt Benckiser's director of regulatory and governmental affairs for d-Con.

Reckitt Benckiser argues that residential consumers should have the choice to use anticoagulants if that's the most effective way to control a rodent infestation. In fact, Ambuter says d-Con was granted registration for a tamper-proof bait



station and hoped the EPA would continue to allow its products for residential use if the anticoagulant was contained. "We applied for an anticoagulant bait in a tamper-proof bait station but were surprised and disappointed that the EPA rejected that registration," Ambuter says.

The role of **bait stations**

Reckitt Benckiser's overarching position is that loose bait should be allowed, while the EPA reforms require that nearly all consumer products be tamper-resistant for children and dogs. "Use of a bait station that substantially reduces exposure to the bait plainly poses less risk to children, domestic animals and nontarget wildlife," the EPA says.

Reckitt Benckiser claims that bait stations are less effective in controlling rodent infestations. And Brutlag says they're not even that effective in preventing poisonings. "We've

Elsewhere in **CV360**

Veterinary director with **Humane Society Veterinary** Medical Association says rodenticide risk could drop with EPA ruling. Page 44

anticoagulants kept on the market for in-home use for consumers. I think that is the safest option in regards to pets and wildlife exposure." —Ahna Brutlag, DVM, MS, DABT Assistant director, Pet Poison Helpline

"I'd like to see long-acting

been looking at that really closely," she says. "We've found that when animals are exposed to new risk mitigation products, a large percent are getting into the bait itself."

Dogs often chew through the bait stations or the plastic bags in which rodenticide blocks are packaged, Brutlag says—and these bags can often hold up to a pound of blocks. Also, she says consumers with a rodent problem often disregard safe practices; they set the bait station out but also set out loose blocks as well.

In addition, Brutlag says, many rodents are suspicious of bait stations—rats in particular. Dogs, however, seem to have no reservations. "When we see dogs get into it, they seem to eat as much as they can," she says. "Would [bait stations] deter them? Dogs will eat anything. I honestly don't know if that would change the outcome here."

Brutlag also says that cats, while fairly tolerant of anticoagulants, are highly sensitive to bromethalin. "I'm glad not to see bromethalin pellets being sold for the home," she says.

Products still available—for now In the meantime, consumers will be able to con-

tinue buying anticoagulant rodenticides. The EPA expects the hearing requested by d-Con's manufacturer to start later this year, "likely several months from now following prehearing proceedings such as prehearing conferences and discovery," the agency said in a late March e-mail to dvm360.

Brutlag concedes that a return to preregulation standards may be impossible. If the EPA carries through with its cancellation of d-Con anticoagulant products, "almost all in-house container-based rodenticide will be bromethalin," she says. Her solution for now is to continue to educate pet owners and veterinarians about the EPA's changes and the dangers of rodenticide posioning.

The EPA says Reckitt Benckiser's refusal to implement the 2008 reforms is the first time in more than 20 years that a company has declined to voluntarily implement EPA risk mitigation measures for a pesticide product and requested a cancellation hearing. It is also the only company—out of nearly 30 rodenticide producers—to refuse to adopt the measures.

To view a list of the d-Con products scheduled for cancellation, go to epa.gov. dvm360





Parasitologists warn of HIGH tick risk

Conditions favorable for parasite populations to thrive; year-round preventives urged. By Heather Biele, DVM

ot or cold? Drought or floods? With the unpredictability of recent weather conditions across the country, it's hard to know what to expect from Mother Nature this summer. But one thing is clear—whatever the weather, it's sure to bring ticks. In fact, they're already here.

Ticks are known carriers of a number of infectious diseases, some of which have been on parasitologists' radar for some time and others that are less well-known but quickly gaining popularity. One of the more common tick-borne diseases that rears its ugly head every year—and shows no sign of relenting—is Lyme disease. And according to initial assessments from the Companion Animal Parasite Council (CAPC), which works with statisticians to evaluate a variety of weather and disease-predicting factors, the threat of Lyme disease for dogs and cats is going to be extremely high this summer.

Dwight Bowman, MS, PhD, professor of parasitology at Cornell University College of Veterinary Medicine,

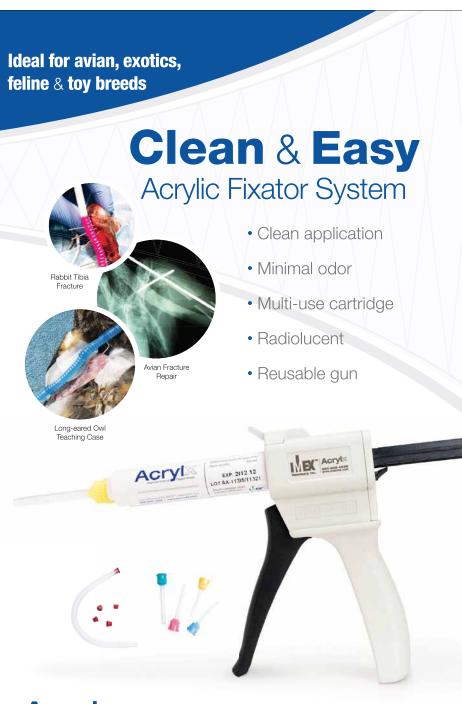
has a similar prediction and says that although veterinarians may see some fluctuations in case load from year to year, Lyme disease continues to spread and is expected to be a problem this year as well. "As long as we have more deer, more rodents and more places for them to live, the number of cases will increase yearly," he says.

And it's not just due a larger reservoir host population. Susan E. Little, DVM, PhD, DEVPC, professor of parasitology at Oklahoma State University Center for Veterinary Health Sciences,



GETTY IMAGES / TANYA LITTLE dvm360 | May 2013 | 31

"Adults of the deer tick, the one that transmits Lyme disease and anaplamosis to dogs, are out in cooler months. Mild winters allow for more days when these ticks can be actively questing. ... Every season is tick season." —Susan Little, DVM, PhD, DEVPC



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states that weather conditions—primarily warmer winters—have created an ideal environment for many tick populations to thrive in and actively seek hosts. "Adults of the deer tick, the one that transmits Lyme disease



and anaplamosis to dogs, are out in cooler months," says Little. "Mild winters allow for more days when these ticks can be actively questing and

lone star tick popula-

tion, which is respon-

sible for the most

common Ehrlichia

thus put more dogs at risk."

But even harsh weather conditions—last summer's drought, for example—haven't slowed these parasites down. While it was thought that the drought might have put a dent in the



species infecting dogs in the United States,

dous amount of endurance and is still going strong, according to Little. And the brown dog tick, known to carry Rocky Mountain spotted fever in the U.S. and by nature tolerant to low humidity and high temperatures, took advantage of the drought conditions and continues to thrive.

However, it's not just the most common ticks and the diseases they carry that have parasitologists concerned this year. Emerging protozoan diseases such American canine hepatozoonosis, carried by the Gulf Coast tick, and cytauxzoonosis, carried by both the American dog tick and the lone star tick, are becoming more of a problem and rapidly becoming evident in larger parts of the country, says Bowman.

The power of prevention

Amidst the apparent doom and gloom of the current tick situation, one common theme is echoed in parasitology camps—preventives are crucial. CAPC continues to recommend year-round parasite control for both dogs and cats. Additionally, the

organization recommends regular examinations—at least annually—by a veterinarian. "While virtually all infestations of parasites are preventable, estimates indicate that fewer than half the dogs in the country are protected," says Chris Carpenter, DVM, MBA, executive director for CAPC.

So why are so few animals protected throughout the year? Little states that many pet owners think they can take their animals off tick preventives in the winter, because it's too cold for ticks to survive in their area. And that's a problem. "It only takes a day or two of nice weather for the ticks to become active and start questing," she says. "Every season is tick season."

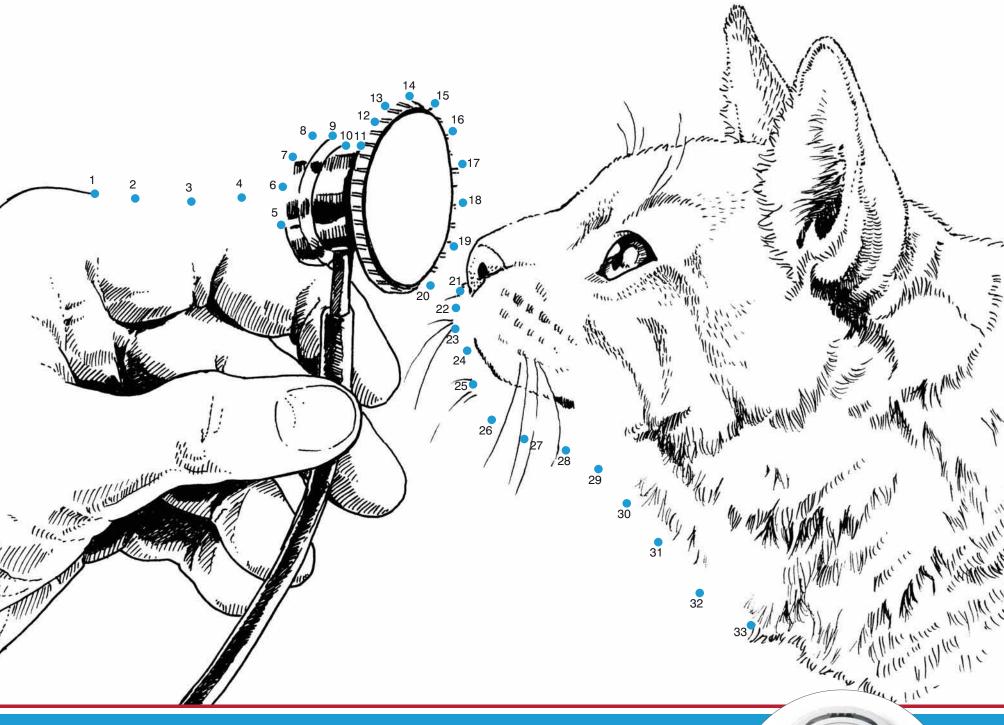
Although year-round preventive compliance rates are low among dog owners, they're almost nonexistent among cat owners. "Cats are not getting to the veterinarians often enough," says Bowman. "All cats should be on some sort of flea control. And if they're going to go outside, they need flea and tick protection."

Little backs up this point by citing recent research from her colleague Mason Reichard, MS, PhD, associate professor of veterinary pathobiology at Oklahoma State University Center for Veterinary Health Sciences. Reichard recently showed in an experimental model that using persistent acaricides on cats protects them from cytauxzoonosis, an often-fatal but preventable disease.

"Cats, as we all know, are the underserved companion animal species when it comes to preventive care," says Little. "And that is true for protection from vector-borne infections as well."

Manufacturers of antiparasite products have made it increasingly easier for pet owners to comply with yearround preventive recommendations. From long-lasting flea and tick collars to monthly oral or topical preventives that often combat multiple internal and external parasites, there are a wide range of choices available for even the most reluctant pet owner. But it still starts with a recommendation and education from the veterinarian.

"We know now that ticks are out every month of the year," says Little. "We also know that they transmit more pathogens than we previously realized. Tick control protects pets from all of these infections—the known and the unknown. It really is a central part of wellness care." dvm360



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NEWS I Market trends



Pharmacy income is a significant source of revenue for most veterinary practices, but market forces are changing the picture for the future. Take a look.

R The Status quo

of practice revenue comes from medication dispensed in Well-Managed Practices.

Well-Managed Practices mark up their dispensed meds an average of

This can make the difference between PRACTICE SURVIVAL and CLOSING the DOORS.





THE GOVERNMENT

In 2012, Congress considered a bill that would have made written veterinary prescriptions mandatory. No law yet, but it's still on the radar. Key issues:

- > consumer choice
- > client convenience
- > lower prices > patient safety.
- Key question: Can these all be weighed on the same scale?

2 DIRECT-TO-CONSUMER INITIATIVES

Many flea preventives, heartworm control products and other parasiticides used to be available only through veterinary practices. Now pet owners can find them at Walmart, Target, Costco and PetSmart. So what? Your clients have started to become accustomed to getting pet supplies through these convenient outlets.

FREE MARKET FORCES
Big box retailers like

Walmart have offered low-cost prescriptions on some meds for a while—like \$4 cephalexin. But now they're looking at offering more and boosting their visibility. And more players are joining the game. Is it just a matter of time before the laws of supply and demand shift the tide in favor of these megastores?

Client perception of prices No question, pet owners be-

of pet owners believe they pay more for meds purchaged at a veterinary practice



lieve they'll pay more if they buy prescriptions directly from their veterinarian. And clients want choices.

of pet owners want their veterinarian to give them all their options (rather than only dispensing in clinic)

of pet owners would like generic options for their veterinary prescriptions vs. name brand products

Where meds are cheaper (in clients' minds)

the veterinarian

think pet meds are cheaper here than at





34 I May 2013 I dvm360 Source: Trone Brand Energy, January 2012





smart is

protection against 5 parasites for the price of 3.















RTWORMS ROUNDWOR

ROUNDWORMS HOOKWORMS

WHIPWORMS

FLEAS





HEARTWORMS





ROUNDWORMS HO

HOOKWORMS

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Flavor Tabs® are now available at a price
comparable to Heartgard® Plus

so you can offer your clients a wider spectrum of protection — all in one monthly tablet.







NADA 141-084, Approved by FDA

 $\label{lem:continuous} \textbf{Brief Summary-For full product information see product insert.}$

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

Description: SENTINEL* (milbemycin oxime/lufenuron) Flavor Tabs* are available in four tablet sizes in color-coded packages for oral administration to dogs and puppies according to their weight.

Milbemycin oxime consists of the oxime derivatives of 5-didehydromilbemycins in the ratio of approximately 80% A_4 ($C_{23}H_{43}N0_{,m}$ MW 555.71) and 20% A_3 ($C_{23}H_{42}N0_{,m}$ MW 541.68). Milbemycin oxime is classified as a macrocyclic anthelmintic.

Lufenuron is a benzoylphenylurea derivative with the following chemical composition: N-[2,5-dichloro-4-(1,1,2,3,3,3-hexafluoropropoxy)-phenylaminocarbonyl]-2,6-difluorobenzamide ($C_nH_nQ_iF_nI_nQ_n$ MW 511.15). Benzoylphenylurea compounds, including lufenuron, are classified as insect development inhibitors (IDIs).

Indications and Usage: SENTINEL Flavor Tabs are indicated for use in dogs and puppies, four weeks of age and older, and two pounds body weight or greater. SENTINEL Flavor Tabs are also indicated for the prevention of heartworm disease caused by *Dirofilaria immitis*, for the prevention and control of flea populations, the control of adult Ancylostoma caninum (hookworm), and the removal and control of adult *Toxocara canis* and *Toxascaris leonina* (roundworm) and *Trichuris vulpis* (whipworm) infection. Lufenuron controls flea populations by preventing the development of flea eggs and does not kill adult fleas. Concurrent use of an adulticide product may be necessary for adequate control of adult fleas.

Dosage and Administration: SENTINEL Flavor Tabs are given orally, once a month, at the recommended minimum dosage of 0.23 mg/lb (0.5 mg/kg) milbemycin oxime and 4.55 mg/lb (10mg/kg) lufenuron. Dogs over 100 lbs. are provided the appropriate combination of tablets.

SENTINEL Flavor Tabs are palatable and most dogs will consume the tablet when offered by the owner. As an alternative to direct dosing, the tablets can be hidden in food. Administer SENTINEL Flavor Tabs to dogs, immediately after or in conjunction with a normal meal. Food is essential for adequate absorption of lufenuron.

SENTINEL Flavor Tabs must be administered monthly, preferably on the same date each month. In geographic areas where mosquitoes and fleas are seasonal, the treatment schedule should begin one month prior to the expected onset and should continue until the end of "mosquito and flea season" In areas with year-round infestations, treatment should continue through the entire year without interruption.

If a dose is missed and a 30-day interval between dosing is exceeded, administer SENTINEL Flavor Tabs immediately and resume the monthly dosing schedule.

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

Precautions: Do not use SENTINEL Flavor Tabs in puppies less than four weeks of age and less than two pounds of body weight. Prior to administration of SENTINEL Flavor Tabs, dogs should be tested for existing heartworm infections. Mild, transient hypersensitivity reactions manifested as labored respiration, vomiting, salivation, and lethargy have been noted in some treated dogs carrying a high number of circulating microfilariae.

Adverse Reactions: The following adverse reactions have been reported in dogs after giving milbemycin oxime or lufenuron: vomiting, depression/lethargy, pruritus, urticaria, diarrhea, anorexia, skin congestion, ataxia, convulsions, hypersalivation, and weakness.

Efficacy: Milbemycin Oxime
Milbemycin oxime provided complete protection against heartworm infection in both
controlled laboratory and clinical trials.

In laboratory studies, a single dose of milbemyoin oxime at 0.5 mg/kg was effective in removing roundworm, hookworm, and whipworm. In well-controlled clinical trials, milbemyoin oxime was also effective in removing roundworms and whipworms and in controlling hookworms.

Efficacy: Lufenuron
Lufenuron provided a 99% control of flea egg development for 32 days following a single dose of lufenuron at 10 mg/kg in studies using experimental flea infestations. In well-controlled clinical trials, when treatment with lufenuron tablets was initiated prior to the flea season, mean flea counts were lower in lufenuron-treated dogs versus placebo-treated dogs. After 6 monthly treatments, the mean number of fleas on lufenuron-treated dogs was approximately 4 compared to 230 on placebo-treated dogs

When treatment was initiated during the flea season, lufenuron tablets were effective in controlling flea infestations on dogs that completed the study. The mean flea count per lufenuron-treated dog was approximately 74 prior to treatment but had decreased to 4 after six monthly doses of lufenuron. A topical adulticide was used in the first eight weeks of the

For technical assistance or to report suspected adverse events, call 1-800-332-2761.

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

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NAH/SEN-FCT/BS/6 06/08



your pharmacy income

The crux of the matter



of pet owners say they would be **likely to switch** if their current pet medication brand was available only at their veterinarian's office *and* another equally effective brand was available at their local pharmacy. (Think **Target**, **Walmart**, **Walgreens** or the local grocery store.)







The UPside }

Yes, there is one. Let's say you recommend that clients buy an effective brand of medication from somewhere else that offers a cheaper alternative.

Percentage of clients who say this would increase their respect for their veterinarian

68%

(Veterinarians said 30% of clients would feel this way)

Percentage of clients who believe that shows your dedication to their pets' best interests

73%

(Veterinarians said 41% of clients would feel this way)

Percentage of clients who say they'd be more loyal to a veterinary practice that did this

70%

(Veterinarians said 28% of clients would feel this way)

Percentage of clients who say this behavior would make them more likely to follow their veterinarian's healthcare recommendations

0%

(Veterinarians said 31% of clients would feel this way)

Percentage of clients who say they'd be likely to buy additional services at the veterinary clinic

62%

(Veterinarians said 31% of clients would feel this way)

Percentage of clients who say this shows you're keeping clients' best interests in mind

75%

veterinarians underestimate the opportunity to...

Build stronger

These numbers show that most

relationships

2 Deliver more health services

Improve word-of-mouth recommendations

(Veterinarians said 45% of clients would feel this way

Why small animal veterinarians (should care about farm animals of animals)

Concern for animals slaughtered in the U.S. should be part of the veterinarian's oath. By Barry Kipperman, DVM, DACVIM

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2727 Thompson Creek Road, Pomona, CA 91767, USA. Phone: (909)-593-7875 Fax: (909)-593-7862 rowing up in suburban Long Island, New York, I had no knowledge or understanding of how animals on farms were cared for or where my food came from. I first became aware of how food animals were treated in the book *Animal Liberation* by Peter Singer, which I read long after graduation from veterinary school.

In the United States, we raise and kill approximately 9 billion animals per year on farms far removed from the clean offices where we practice as small animal veterinarians. Singer and others² have described how over the past 60 years animal agriculture has shifted from a culture of husbandry, in which the farmer was a steward of his or her small herd living on pasture and felt a responsibility to ensure the animals' welfare, to its present state of industrialization, in which animals are bred to be increasingly large, processed in higher numbers and confined in smaller spaces. We have moved from an era in which farmers were the animal's caretaker to one in which we have sacrificed virtually any commitment to farm animal well-being.

According to the American Veterinary Medical Association (AVMA), approximately 77 percent of veterinarians in 2012 practiced exclusively or part-time on small animals.3 Many of these small animal veterinarians have adopted dogs or cats that others relinguished and are helping to improve the lives of their future patients by volunteering at spay-neuter clinics and contributing time and discounts to local rescues and other humane organizations. Yet our actions don't seem to extend to animals we don't see or interact with—animals that desperately need our assistance.

The case for farm animals

According to the AVMA, there are approximately 70 million pet dogs and 74 million pet cats in the United States.⁴ Comparatively, the number of animals slaughtered in the United States in 2011 was more than 9 billion, as follows:

- > 8.7 billion chickens
- > 246 million turkeys
- > 110 million pigs.5

For those less inclined to follow decimal points, consider this: The number of turkeys slaughtered in one year far surpasses the number of pet dogs and cats combined, and the number of farm animals killed in one year is more than 60

Commentary | COMMUNITY

times the number of pet dogs and cats combined. If for no other reason than the sheer magnitude of these numbers, the plight of farm animals warrants our concern. Here are a few considerations:

Housing and confinement of pigs. More than three-quarters of breeding pigs (approximately 6 million) are confined in gestation crates—metal cages approximately 2 feet wide by 7 feet long. Sows are unable to turn around in this cramped space and live in these crates for four months without respite. A few weeks after nursing is completed, she is impregnated and transferred back to the gestation crate.

Recent animal welfare actions in the food industry

March 2012: Wendy's announces it will eliminate gestation crates from its supply chain.

May 2012: McDonald's says it will eliminate gestation crates from its pork supply chain by 2022.

June 2012: Kroger, the nation's largest grocery chain, announces that it will eliminate gestation crate confinement from its supply chain.

July 2012: Costco, the secondlargest U.S. food retailer, says it will eliminate gestation crates from its pork supply chain by 2022.

August 2012: Subway announces that it is working to eliminate gestation crates from its pork supply chain by 2022.

August 2012: Aramark, the nation's largest food service company, announces plans to eliminate gestation crates from its supply chain by 2017.

October 2012: Target, the nation's fourth-largest food retailer, says it will eliminate gestation crates from its pork supply chain by 2022.

December 2012: Safeway becomes the first grocery retailer to make a national commitment to certified humane cage-free eggs.

Source: humanesociety.org

A breeding pig thus spends nearly every moment of her life confined to a degree of virtual immobilization.⁶

Housing and confinement of chickens. In the United States, approximately 95 percent of egg-producing chickens (estimated at 280 million) are confined inside battery cages. Standing practice confines eight hens in a cage

so that each bird has less space than a letter-sized piece of paper on which to stand.⁸ Thus confined, hens are unable to manifest normal behaviors such as nesting and perching.

Slaughter of chickens. The birds are removed from transport crates and placed upside-down by their legs in shackles onto a conveyor belt. Most

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44 TESTIMONAL:

"We added the CR7 to our practice almost one year ago and have been very happy with the decision. The flexibility provided by the various plate sizes, and their thinness, combined with excellent detail, have been welcome additions to our diagnostic abilities. The technical support has been superlative. I would recommend this system to anyone looking to add digital dental radiography to their practice".

Judy RochetteDVM, FAVD, Dipl AVDC

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Animal Health

COMMUNITY | Commentary



>>> Hens contained in battery cages on an egg factory farm in Texas, where countless dead birds were discovered in cages with live birds.



>>> Sows in gestation crates at a Wyoming pig breeding facility owned by a pork supplier for Tyson Foods and Jimmy Dean.

chickens are stunned in an electrified water bath, which immobilizes them prior to slaughter via an automated knife, which results in death via exsanguination. Given the rapid speeds of these conveyors (150 birds per minute), some birds miss the knife and are likely still alive before entering a scald tank.⁹

Slaughter of pigs. Pigs are rendered insensible prior to slaughter using either a captive bolt gun, electric current or CO₂ gassing. Each of these stunning methods depends on proper equipment and training of personnel. The animal is then shackled and hoisted by a hind limb and exsanguinated via a cut to the pectoral region.⁹

Cognitive abilities of chickens.

Observation of chickens in their natural environment reveal them to be capable of social attachments and preferences and to have cognitive skills rivaling those of mammals.¹⁰

Cognitive abilities of pigs. Pigs are highly intelligent, curious animals. According to a recent study in the journal *Animal Cognition*, "Animal welfare scientists ... share the opinion that pigs have considerable cognitive abilities. The public's perception of the intelligence of an animal influences the importance attached to its welfare, and many consumers consider farming practices that result in poor animal welfare to be unacceptable."

The state of legal protection

Although most states have laws protecting dogs and cats from neglect, malicious cruelty and abandonment, animals raised for food are essentially exempt from similar protections because of presumed reasonable economic interests and cultural norms.¹²

In 1958 Congress passed the Humane Slaughter Act to ensure that animals used for food were slaughtered humanely. Yet chickens and turkeys, which constitute more than 90 percent of animals killed for food, are exempted from protection under this act. The Animal Welfare Act, enacted in 1966, excludes all animals used in agriculture from government protection. As it stands now, those with an economic interest in raising animals for food dictate standards of acceptable care. The recent proliferation of legislation in agricultural states to ban the photographing and videotaping of animals on farms reveals how determined the agriculture industry is to conceal present methods of animal handling from the public.13

Public response

In May 2003, a Gallup poll demonstrated that 75 percent of Americans want to see federal legislation enacted that would ensure the well-being of farm animals.³ It's clear that when the public is informed about the methods by which animals are raised and slaughtered, their response is one of compassion. Nine states have passed laws via ballot initiative in the past decade mandating the eradication of certain extreme confinement methods (see the list on p. 42).

Veterinary response

Organized veterinary groups have had little meaningful impact on the welfare of farm animals, likely as a consequence of the interdependent relationship between a subset of large animal veterinarians and the agriculture industry. In fact, when a citizen initiative (Proposition 2) was on the California ballot in 2008 to provide that farm animals be able to move and extend their limbs, the AVMA did not endorse the measure, asserting that there was not enough science to ensure animal safety with increased living space.14 Sixtythree percent of the general population of California passed the measure.



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It's easy to see how the Real-Beef Chewable supports your recommendation for year-round heartworm disease prevention. HEARTGARD® Plus (ivermectin/pyrantel) is:

- The only heartworm preventive that comes in the Real-Beef Chewable
- The heartworm preventive dogs love to take^{1,2}
- The #1 most requested heartworm preventive³
- Backed by the Plus Customer Satisfaction Guarantee⁴





- Of dogs showing a preference in three studies, dogs preferred HEARTGARD® Chewables over INTERCEPTOR® (milbemycin oxime) Flavor Tabs® by a margin of 37 to 1; data on file at Merial Of dogs showing a preference in two studies, all dogs preferred HEARTGARD Plus Chewables to TRIFEXISTM (spinosad + milbemycin oxime) beef-flavored chewable tablets; Executive Summary VS-USA-37807 and VS-USA-37808.

 Opinion Research Corporation, Heartworm Prevention Medication Study, 2012. Data on file at Merial.

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IMPORTANT SAFETY INFORMATION: HEARTGARD® (ivermectin) is well tolerated. All dogs should be tested for heartworm infection before starting a preventive program. Following the use of HEARTGARD, digestive and neurological side effects have rarely been reported. For more information, please visit www.HEARTGARD.com.

See brief summary on page 42



COMMUNITY | Commentary

States that have banned extreme confinement methods

Arizona: Passed Proposition 204 in 2006 to ban gestation crates and veal crates effective in 2012.

California: Passed Proposition 2 in 2008 to ban gestation crates, veal crates and battery cages by 2015.

Colorado: Voted in 2008 to phase out gestation crates and yeal crates by 2018 and 2012 respectively.

Florida: Passed Amendment 10 in 2002 to ban gestation crates effective in 2008.

Maine: Voted in 2009 to phase out gestation crates and veal crates by 2011.

Michigan: Voted in 2009 to phase out gestation, veal crates and battery cages by 2019, 2012 and 2019 respectively.

Ohio: Voted in 2011 to phase out gestation crates and veal crates by 2025 and 2017 respectively.

Oregon: Voted in 2007 to phase out gestation crates by 2012.

Rhode Island: Voted in 2012 to ban gestation crates and veal crates by 2013.

Source: humanesociety.org



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 ascands (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	Ivermectin 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 a 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, rediscreptions of the dose has bee

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, where by a few days or many, immediate treatment with HEARTIGARD 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

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 st 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.

Depression/lethargy, vomiting, anorexia, diarnhea, 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, anthelminitics, antibiotics, vaccines and steroid preparations have been administered with HEARTGARD Plus in a heartworm disease prevention program.

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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Small animal veterinarians are obliged by virtue of our oath to "prevent and relieve animal suffering," which means broadening our scope of moral concern beyond the pets we care for each day to include animals we are less emotionally attached to and do not see or hear behind slaughterhouse doors. The sheer number of animals affected makes this, in my consideration, the most important animal welfare issue. As we cannot rely on legal protections nor the agriculture industry to improve the welfare of farm animals, we must take individual actions to help. These can include:

- > Lobbying for legislation mandating improved treatment of farm animals
- > Encouraging food retailers to improve animal care from their suppliers
- > Working with organizations such as the Humane Society of the United States and the Humane Society Veterinary Medical Association, which work to improve farm animal welfare
- > Learning more about methods of farm animal welfare from resources such as farmanimalwelfare.org
 - > Reducing or eliminating personal

consumption of animal products such as meat, eggs and milk

- > Speaking out against efforts to censor photographing animals on farms
- > Supporting the trend among select industries to eliminate severe confinement methods such as gestation crates, veal crates and battery cages (see the list on page 37).

We've had a centuries-old relationship with farm animals in which we relied on them for food, transportation and fiber and took care of them in kind. With the advent of industrialized agriculture, we have broken this pact. Our humanity will be judged by our willingness to improve their living conditions. dvm360

Dr. Barry Kipperman is staff internist and founder of VetCare, a 24-hour referral-emergency practice in Dublin, Calif. He has published numerous ar-



ticles on veterinary ethics, presented on veterinary ethics and standards of care, and been a guest lecturer at University of California-Davis.

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Canine Cushing's Case Files:

THE INS AND OUTS OF DETECTION AND TREATMENT

Case file: YOUR VETERINARY TEAM'S ROLE IN IDENTIFYING DOGS WITH HYPERADRENOCORTICISM

Every day, each member of your veterinary team plays an integral role in helping pets receive regular preventive care, identifying pets that need further veterinary evaluation, and ensuring patients receive appropriate follow-up care. When your technicians and other team members are well trained, they can help keep clients informed about signs of illness in their pets so diagnoses can be reached earlier and treatments initiated sooner.

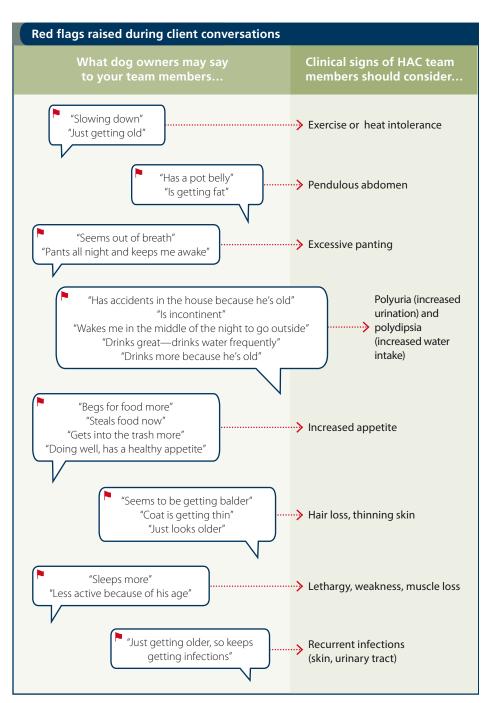
Teach your team about Cushing's

Educating clients about the signs of disease in older pets is especially important, because clients often attribute clinical signs to "normal" aging, and their pets' health may in fact be deteriorating. For example, pet owners may misinterpret some clinical signs of hyperadrenocorticism (HAC, also known as Cushing's syndrome) such as lethargy and increased urination and drinking as normal, age-related changes. Therefore, team members should understand HAC so they are comfortable communicating with clients about identifying affected pets.

This article reviews basic information about canine HAC that team members should know to help veterinarians at the practice identify potential Cushing's patients. Your team should understand the different types of HAC (see boxed text "What is hyperadrenocorticism?" on page 2), be aware of client comments that signal potential clinical signs of the disease, and help reinforce your message to clients about why multiple diagnostic tests may be needed.

Normal aging or "red flags?"

Your practice should already be educating clients about the importance of senior wellness examinations and diagnostic senior testing, which will uncover underlying illnesses in older dogs. The clinical signs of HAC and many other illnesses can develop slowly, and many owners may simply chalk them up to normal aging. This is where you need your team to be your eyes and ears.





What is hyperadrenocorticism?

Hyperadrenocorticism is a common endocrine disease in middle-aged to older dogs and results from overproduction of cortisol, a hormone that helps the body respond to stress. There are two naturally occurring forms of the disease: pituitary-dependent hyperadrenocorticism (PDH) and adrenal-dependent hyperadrenocorticism (ADH). In PDH, the pituitary gland overproduces adrenocorticotropic hormone (ACTH), which in turn stimulates excess cortisol release from the adrenal glands. ADH results from excess cortisol production by a tumor on one, or rarely, both of the adrenal glands. PDH accounts for 80% to 85% of HAC cases, and ADH accounts for 15% to 20% of cases.

Clinical signs of hyperadrenocorticism can also arise as a result of long-term administration of high doses of corticosteroid drugs. This is called iatrogenic hyperadrenocorticism, and, if it occurs, the corticosteroid should be discontinued. This article focuses on PDH and ADH.

Your technicians and receptionists should listen carefully when clients report signs of aging in their pets, and use their expertise to help identify these signs as initial "red flags" for the veterinarian. (See boxed text "Red flags raised during client conversations.") These signs can often have a profound effect on quality of life for the pet and of the owner.

Your team members are often the first to realize there may be a problem and should take the opportunity to engage owners in a conversation about their pet's behavior at home. If owners say that their dog is fine, that he's just acting old, a team member should inquire further about what owners mean by this. Technicians can start this conversation and help set the stage for veterinarians to get owner approval for diagnostic testing.

What It Does

Test

Explaining initial tests

For pets with clinical signs and physical examination findings suggestive of HAC, team members should know that simple blood and urine tests will be the first step in the diagnostic plan. These baseline tests — a complete blood count, a serum chemistry profile, and a urinalysis — are usually components of senior wellness testing. Certain abnormal results (such as changes in liver enzyme activities, cholesterol or triglyceride concentrations, blood cell counts, and urine concentration) may signal the need for more diagnostic tests to identify HAC.

If the veterinarian suspects HAC based on the pet's clinical signs and baseline test results, then more specific testing is required. Your team can help alleviate apprehensions about testing by educating owners about these tests.

Test Requirements

They can help explain in plain language what information the results may yield. It is also important for clients to be told that there is not one simple test to confirm the diagnosis of HAC; multiple tests may be required. (See Table.)

Explaining tests to distinguish PDH from ADH

Once a diagnosis of HAC has been made, team members can reinforce your message to clients that it is important to determine if the patient has PDH or ADH because this affects a patient's prognosis and treatment planning. Patients with ADH may have malignant tumors on the affected adrenal gland, which may invade local vital structures. In some cases, surgery to remove the affected gland is recommended.

If the initial diagnostic test results do not differentiate between PDH and ADH, then additional tests may be needed. These include abdominal ultrasonography to evaluate the adrenal glands; a high-dose dexamethasone suppression test, which is similar to the LDDS test but uses a higher dose of dexamethasone to assess cortisol suppression; or a computed tomography scan (CT-Scan) or magnetic resonance imaging (MRI) to evaluate the pituitary gland.

What It Means

1630	Wilat it Does	Wilat it Wealis	rest nequirements
Urine cortisol:creatinine ratio (UCCR)	Measures the amount of cortisol in the urine compared to creatinine	Abnormal test result = further testing needed Normal test result = 95% certainty that the dog does <i>not</i> have HAC	A single urine sample that the owner brings from home
ACTH stimulation test	Measures the ability of the adrenal glands to produce cortisol in response to an injection of ACTH	Dogs with HAC are expected to have an exaggerated cortisol response Test results do not differentiate between ADH and PDH	Two blood samples, collected one hour apart; before and after administration of synthetic ACTH
Low-dose dexamethasone suppression (LDDS) test	Measures the ability of the pituitary gland to suppress ACTH release and thus cortisol production from the adrenal glands in response to an injection of dexamethasone	Dogs with HAC are expected to show minimal or no suppression of cortisol Can be used to confirm PDH in 60% of cases	Three blood samples (baseline, then four and eight hours after administration of dexamethasone)

TABLE Common initial tests to help identify canine hyperadrenocorticism*

Your eyes and ears

Your team members are your adjunct eyes and ears when a client first arrives at your practice. They spend the majority of their time communicating with all your clients, in person and on the phone or via email or social media. And the veterinarian's message carries much more weight when it is consistently and repeatedly delivered by every person the client encounters at your practice.

The veterinary team can be instrumental in identifying those dogs in which signs of old age are attributable to HAC. Hyperadrenocorticism is a complex disease process, but successful management is possible with the help of a dedicated veterinary team.

The next Canine Cushing's Case Files article will continue with a discussion of the team's role in the treatment and monitoring of dogs with HAC and direct you to readymade team training and client education resources for your practice.

^{*}Consult your diagnostic laboratory for testing requirements and sample submission instructions.



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Proven safety and efficacy in dogs	YES	NO
Consistent strength, purity, and quality in every dose	YES	NO
Veterinary technical support, adverse event reporting	YES	NO
Legal liability to clinic	NO	YES

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¹Pharmaceutical Evaluation of Compounded Trilostane Products (Cook, et al, JAAHA 48:4, Jul/Aug 2012)





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Diagnosing and treating feline hyperthyroidism

Presented by Andrew J. Rosenfeld, DVM, DABVP



Then get your whole team on the same page, by visiting the

Team Meeting In A Box section at www.dechrace.com

Coping with Cushing's syndrome

Pets with Cushing's syndrome suffer from a chronic illness that will be managed throughout the pet's life, not cured. This Team Meeting In A Box will help you deliver a successful team-wide approach.

Stop getting burned by ear infections

How you handle otitis externa and ear infections can make or break client bonds—and dogs' well-being. Use this Team Meeting In A Box to create a team approach to help pet owners and heal patients.



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Dinner Meeting in Richmond, Va.

Topic: The Medical Management of Canine Cushing's Syndrome

Speaker: Cathy Just, DVM

1.5 CE credits

Location: Maggiano's, 11800 W. Broad St.,

Richmond, VA 23233

Arrival/Appetizers: 6:30 p.m. Dinner/Presentation: 7:00 p.m.

To RSVP and for more info: Contact your Butler Schein Animal Health representative or Steve Spurlock at steve.spurlock@dechra.com.

THURSDAY, MAY 16, 2013

Dinner Meeting in Charlottesville, Va. **Topic**: The Medical Management of Canine Cushing's Syndrome

Speaker: Cathy Just, DVM

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To RSVP and for more info:

dinnermeetingmay162013.eventbrite.com

TUESDAY, MAY 28, 2013

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Speaker: Becky Sakai, DVM, DACVD To RSVP and for more info:

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

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

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

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

ADVERSE REACTIONS: The most common adverse reactions reported are poor/reduced appetite, vomiting, lethargy/dullness, diarrhea, and weakness. Occasionally, more serious reactions including severe depression, hemorrhagic diarrhea, collapse, hypoadrenocortical crisis, or adrenal necrosis/rupture may occur, and may result in death.



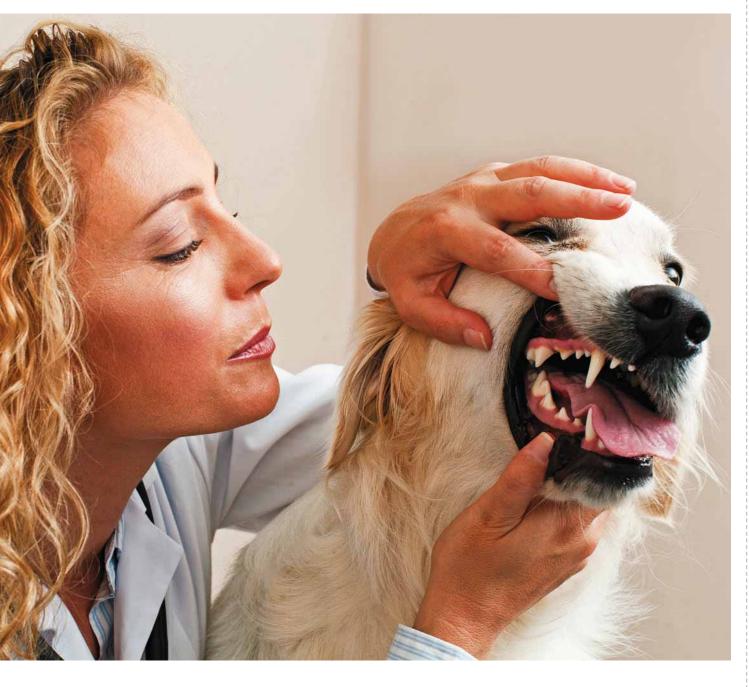
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MEDICINE | Dentistry



Part 1 of a three-part series

Questions from the dental trenches

The *practical* side

Common inquiries from lectures about marketing, client compliance and much more. By Brett Beckman, DVM, FAVD, DAVDC, DAAPM

ver the years I've given a lot of lectures on veterinary dentistry at continuing education conferences and sponsored symposia. And I've gotten to where I can almost perfectly predict what the

audience's top questions will be at the end of my sessions.

I'm assuming that you might have some of these same questions, so I'm kicking off a three-part series of "dental FAQs" to provide answers to some of the more practical concerns when it comes to veterinary dentistry. If you have a question you'd like to see answered in the next two installments, send an e-mail to dymnews@advanstar.com.

DIAGNOTES

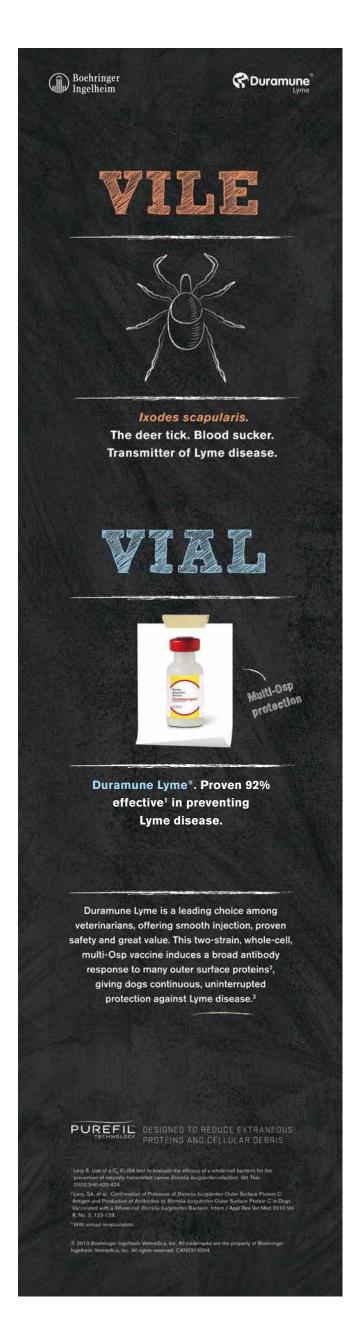
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MEDICINE | Dentistry

On dental day, we perform six to eight prophys, but we would like to perform more. How do we bring in more patients?

The first thing to realize is that there is practically no such thing • as a "routine prophy." Patients that have been anesthetized for a "prophy" have visible calculus and gingivitis or they would likely not have had the "prophy" scheduled to begin with. Cleaning without evaluating the patient radiographically is of little to no benefit. And with radiographs, almost all of those "30-minute prophys" are really 60- to 120-minute or longer oral surgical procedures involving periodontal regenerative procedures, plus or minus surgical flaps and extractions (Figure 1). The problem is not the number of patients being low; the problem is not doing a thorough job on the patients we have.

Our clients will not opt for expensive dental services. It is hard enough to get them to agree to a prophy. How can we make sure they agree to needed dental work?

Vilfredo Pareto, an Italian engineer working in France in the late 1800s noticed that 80 percent of the land was owned by 20 percent of the population. From that observation grew the Pareto principle, or the "80-20 rule." It holds true for a multitude of real-life examples, veterinary practice dynamics being one of them.

You are correct in assuming that most of your clients will not take your recommendations regarding any high-end service. Eighty percent will say no to plating for a limb fracture, a complete workup for an acute vomiting patient, a cardiac evaluation, an ultrasonographic examination—and the list goes on. It is the 20 percent who *will* opt for dental radiography and will pay for the therapy required uncovered by this invaluable standard of care tool that you should focus your efforts on.

We have dental radiographic equipment, but it would take us 45 minutes to an hour to take full-mouth radiographs in a large dog. How can we become more efficient?

Many practices feel the same way. The answer is practice. Practice on cadaver head specimens, not skulls. Cadaver specimens are the closest equivalent to a live patient and are the only way to become proficient before providing this service to a live anesthetized patient. Proper guidance in positioning and software template setup is essential and can be obtained at veterinary dentistry.net/x-ray-book. Reachable full-mouth radiographic time goals are 20 minutes or less on a large dog and eight minutes or less on a cat or small dog.

We have a technician who is good at taking radiographs, but the practice manager or owner is always trying to get us to hurry to finish



>>> **Figure 1:** This patient had a dental cleaning a month before presentation but still exhibited odor and oral discomfort. Radiography revealed multiple areas of marked periodontal bone destruction necessitating multiple extractions.

one prophy so that we can get to the next one to meet the schedule for the day. How can we find the right balance?

If you have to ask that question, the entire dental • service needs to be restructured and the entire staff (other than the technician who is taking the radiographs) needs proper continuing education. Complete evaluation of each and every patient for oral disease requires the production of a fullmouth radiographic survey, proper interpretation by a veterinarian, preemptive client education by technicians and veterinarians, timely estimate generation by the receptionist and proper treatment by a veterinarian trained in dental radiographic interpretation and surgical extractions. Surgical extractions should be the most commonly performed dental procedure if the veterinarian is properly trained in interpretation and therapy. Courses for veterinarians and technicians can be viewed at veterinarydentistry.net.

We have four veterinarians in our practice, and three of them will see dentistry cases. One is very knowledgeable, but the other two miss many things that the knowledgeable one would correctly treat. How can we make sure all patients get top-notch care?

This is an extremely popular question. The answer • involves putting yourself in a client's shoes. Who would you rather have evaluating and treating your pet for oral disease? The practice must come to this realization and invest in further continuing education for the veterinarian who shows the most interest, knowledge and skill in dentistry. Deem that individual the sole curator of the dental suite, performing all radiographic interpretation and treatment. That person may become the busiest in the practice, significantly adding to the revenue per dental case by applying his or her superior knowledge and skill. Most importantly, the patients will be the ultimate winners.

What do you say to a client who doesn't think a pet needs a dental cleaning

and radiographic evaluation because it is not showing signs of pain?

This is a very common owner objection. Here are • several suggestions:

1. Do not allow owners to voice the objection in the first place. Preempt questions by telling clients that most

dentistry patients do not present with signs of pain. Relay to the pet guardian that most of the time we only know that the patient was painful at the recheck examination. If a patient with periodontal disease that requires extractions has undergone appropriate surgical correction with flaps, diseased bone and tissue removal, extractions

You Can't Always See Periodontal Disease.



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state, "in many instances the examiner will underestimate the conditions present because it is impossible to visualize all oral structures when the patient is awake."*

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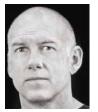


and closure, the owner will relay any number of positive behavioral changes that he or she has seen in the pet since the surgery. Only then do clients realize that their pets were in pain. Some pet guardians feel very guilty at this stage, thinking that their pets were just getting older and lamenting on how they let this go.

2. Show them images of patients that came in for problems other than pain but had obviously painful oral conditions (Figures 2 and 3). Images of nonoral painful conditions are also effective (Figure 4).

3. As veterinarians and technicians, we often observe pain in our patients during oral examinations while probing painful regions and experiencing a pain reflex in the form of a sharp jaw movement upon contact. Relay this to the pet guardians verbally, or record the event and present it during the consultation.

4. Nonverbal patients cannot demonstrate pain easily and often mask it, continuing to eat, play, go for walks and so on. Pet guardians should be aware of this ability to mask pain. dvm360



Dr. Brett Beckman lectures internationally on veterinary dentistry and sees patients at Affiliated Veterinary Specialists, Orlando, Fla.;

Florida Veterinary Dentistry and Oral Surgery, Punta Gorda, Fla.; Animal Emergency Center of Sandy Springs, Atlanta; and Dallas Veterinary Dentistry and Oral Surgery, Dallas. Find out more at veterinarydentistry.net.



>>> Figure 2: This cat demonstrated no obvious signs of pain at home. The referring veterinarian noted the painful stomatitis and referred this cat for proper care to a veterinary dentist for full-mouth extractions

>>> **Figure 3:** This mixed-breed dog presented for oral malodor, not pain. A spring had lodged between the teeth and had resulted in bone necrosis and the odor.

>>> Figure 4: This geriatric dog presented wagging its tail but was non-weightbearing on its limb. The owner's perception was that the dog was not in pain. However, it turns out that the patient had osteosarcoma, which is a severely painful condition.





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Urine specific gravity measurement £ interpretation

A look at the indications for this important part of a urinalysis and how to interpret the results. (Part 2 of a 3-part series.)

By Carl A Osborne, DVM, PhD, DACVIM, and Eugene E. Nwaokorie, DVM, MS

n the March issue of *dvm360* ("How specific is urine specific gravity?"), we asked several questions about urine specific gravity, such as what does urine specific gravity measure? This month, we continue to investigate whether urine specific gravity is really specific.

But first, let us review some of the major points we covered previously. The kidneys excrete unwanted solute (urea, creatinine, minerals and other metabolic garbage) in a volume of water that is not itself required to maintain homeostasis. Elimination of unwanted solutes and water is the result of carefully regulated glomerular filtration, tubular reabsorption and tubular secretion. Serum urea and serum creatinine are predominantly dependent on the glomerular filtration rate (GFR) and, therefore, are used to measure the GFR. So what does urine specific gravity measure? Urine specific gravity is used as a clinical index of tubular function.

Methods of measurement

Measurements of urine specific gravity made by osmometers, refractometers, urinometers and reagent strips are related but not interchangeable. Measurement of urine osmolality provides information that is more closely related to renal concentrating

capacity than does specific gravity or refractive index. Osmometers provide more accurate assessment of osmolality of individual urine samples than refractometers or urinometers but are relatively expensive.

As mentioned, urine specific gravity is a direct but not proportional function of the number of solute particles in urine. Urine specific gravity varies with the kind of solute present, whereas urine osmolality is independent of the types of solute present. Therefore, urine specific gravity provides only an estimation of osmolality. Indirect measurement of urine specific gravity by refractometry is useful as a screening test of renal function. Urine osmolality measured with an osmometer should be used for patients with undiagnosed persistent polyuria when errors in assessment of renal function are of significant consequence. Vapor pressure osmometers are preferable to freezing point osmometers when assessing urine samples with high osmolality.

Evaluation of urine specific gravity is essential when interpreting test results of the complete urinalysis. Refractometers are recommended over urinometers for determination of urine specific gravity because they provide more reproducible results, require a small sample size, are

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Indications

Measurement of urine osmolality, either directly by osmometry or indirectly by evaluation of urine specific gravity, is the primary method used to evaluate the kidney's "response ability" to concentrate (remove water in excess of solute) or dilute (remove solute in excess of water) urine. Thus, evaluation of urine osmolality or specific gravity is an index of tubular reabsorption. Knowledge of urine osmolality or specific gravity is also extremely helpful when attempting to differentiate among the underlying causes of polyuria and when localizing the pathophysiologic mechanisms of azotemia (Table 1).

Routine evaluation of urine specific gravity involves interpretation of tests that are part of the complete urinalysis. Interpretation of other test results of the urinalysis depend on knowledge of specific gravity (or urine osmolality) since these data provide information regarding the ratio of solutes to solvent (water). Tests of routine urinalyses are typically performed on a relatively small sample of urine without regard to the rate of formation of urine or total urine volume. Semiquantitative interpretation of results is unfeasible in such samples without knowledge of specific gravity.

Consider proteinuria as an example. Does 2+ proteinuria at a specific gravity of 1.010 reflect an equal or greater loss of protein than a 2+ proteinuria at 1.050? The answer is obvious—there is more protein in the less concentrated sample. The same concept is applicable to interpretation of positive test results for glucose, ketones, bilirubin, occult blood and constituents in urine sediment.

Another indication for evaluation of urine specific gravity or osmolality is as an aid for monitoring the patient's fluid balance, especially during therapy with parenteral fluids.

Interpretation

The root word *sthen* is Latin for the English word *strength*. Hypersthenuria, hyposthenuria and isosthenuria are terms that depict the solute concentration (or strength) in urine compared

with the concentration of solute in glomerular filtrate:

- Hypersthenuria (also called *baruria*) depicts urine of high specific gravity and osmolality compared with glomerular filtrate.
- Hyposthenuria depicts formation of
- dilute urine with a specific gravity and osmolality that are significantly lower than those of plasma and glomerular filtrate.
- Isosthenuria depicts urine with a specific gravity and osmolality similar to those of (or with the same strength



Table 1

Table 1						
Differentiation of different forms of azotemia						
Factor	Prerenal azotemia	Primary intrarenal azotemia	Postrenal azotemia	Primary renal azotemia with functional glomerular imbalance		
Serum urea nitrogen concentration	Increased	Increased	Increased	Increased		
Serum creatinine concentration	Increased	Increased	Increased	Increased		
Urine specific gravity	≥ 1.035 (dog); ≥ 1.040 (cat*)	± 1.007–1.029 (dog); ± 1.007–1.039 (cat*)	Variable	± 1.020–1.030 (dog); ± 1.035–1.040 (cat)		
Proteinuria with normal sediment	Usually negative	Variable depending on cause	Usually negative	Positive		
Proteinuria with RBCs and/or WBCs	Usually negative	Variable depending on cause	Often positive	Positive		
Prerenal cause	Present	Absent	Absent	Usually negative		
Postrenal cause	Absent	Absent	Present	Absent		
Response to correction of postrenal cause	Not applicable	Not applicable	Within hours to a few days	Absent		
Response to correction of renal perfusion with fluids	Within 1–3 days	Minimal if normally hydrated	Minimal	Minimal		

^{*}Some cats with primary renal azotemia may concentrate urine to 1.045 or greater.

as) plasma and glomerular filtrate. $\,$

Complete loss of the ability to concentrate or dilute glomerular filtrate according to body need is sometimes referred to as *fixed specific gravity*.

In the context of quantifying urine concentration, terms that are more useful than hypersthenuria are 1) maximum urine concentration, 2) functionally adequate urine concentration and 3) inappropriate urine concentration (Table 1). There is significant species variability in maximum and functionally adequate urine concentrating capacities.

Osmotic activity in extracellular fluid and urine

Sodium, chloride and bicarbonate account for about 90 percent of the osmotic activity of extracellular fluid. Nonelectrolytes such as urea, proteins and glucose account for the remainder of the osmotic activity (10 percent). Sodium, chloride and urea account for most of the osmotic activity in urine.

There is usually no significant difference between the osmolality (specific gravity) of uncentrifuged urine and of

centrifuged urine because cells, casts and os on do not contribute significantly to osmotic pressure. There is no significant difference between serum and plasma osmolality since fibrinogen does not exert a significant osmotic effect. However, the quantity and type of anticoagulant used to obtain plasma may be of significance. For example, EDTA may contribute 5 to 20 mOsm/kg to plasma osmolality, depending on the amount of blood in a 2-ml Vacutainer (BD) tube. Heparin is usually used as the anticoagulant for plasma osmolality determinations.

Normally the osmotic concentration of urine is variable, depending on the fluid and electrolyte balance of the body and the nitrogen content of the diet. Species differences in the ability to concentrate urine are also significant (Table 1). Interpretation of urine osmolality is usually enhanced when the values of serum or plasma osmolality are also available. The osmotic concentration of plasma, serum, interstitial fluid and transcellular fluid is about 280 to 310 mOsm/Kg of water. The osmotic concentration of glomerular filtrate is about 300 mOsm/kg of water. The ratio of urine osmolality to plasma

osmolality (U/ $P_{\rm osm}$) is a good clinical index of the ability of the kidneys to concentrate or dilute glomerular filtrate.

- A U/P_{osm} ratio above 1 indicates that the kidneys are concentrating urine above plasma and glomerular filtrate. After water deprivation, the U/Posm of normal dogs may be 7 or higher.
- A U/P_{osm} ratio of about 1 indicates that water and solute are being excreted in a state that is isosmotic with plasma.
- A U/P_{osm} ratio markedly below 1 indicates that the tubules are capable of absorbing solute in excess of water (i.e., they are diluting glomerular filtrate).

In the next Diagnotes (Part 3) we will give you the chance to apply the concepts discussed in parts Parts 1 and 2 to clinical cases admitted to the veterinary teaching hospital. dvm360

Dr. Carl A. Osborne is the director of the Minnesota Urolith Center and a professor at the College of Veterinary Medicine at the University of Minnesota. Dr. Eugene Nwaokorie is pursuing a PhD at the University of Minnesota.



Read the first part of this series—How specific is urine specific gravity?—at dvm360. com/Osborne. You'll also find other urology topics by Dr. Osborne, including:

- 21 tips to enhance your crystalluria interpration
- What's your diagnosis?A urinalysis challenge

TWEET & greet

dvm360 readers react to trending topics via Twitter

>> DEA targets mobile veterinarians in California (March 2013)

Lisa Shumate @AggieVet95

This could definitely be a problem for mobile vets! See especially the last paragraph re: euthanasia!

>> Feline predation study ruffles feathers (April 2013)

KF4ZMB @dvm360

I just don't really buy the hype behind studies like this. CATS ARE ANIMALS! You would never see a study, "Are bears eating too much?"

>> Veterinarian, best-selling author Nick Trout releases new novel

(April 2013)

firmbei @firmbei

Nick Trout was one of my instructors in vet school. He was always nice to us.

>> 'Obamacare' reaches veterinary medicine (February 2013)

WSmithFITN @WSmithFITN I'm not surprised by this one bit.

>> Children's book puts euthanasia woes to rest (March 2013)

AGHVet @AGHVet

If you have small kids and elderly pets this is a great book to help them understand what happens when it's time.

LenniePeterson @LenniePeterson I'm honored 2 b apart of "When you have to say goodbye," helping kids & parents cope w pet loss

>> Ohio woman gets 18 months for posing as veterinarian (April 2013)

minivbb @minivbb

Complete loser Brandi Tomko is getting what she deserves. #dothecrime #dothetime #fraud WHY??

>> Canine patient emits toxic gas, sending veterinary staff to hospital (December 2012)

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CAN JAK INHIBITION BREAK THE CYCLE OF PERSISTENT ITCH?

In canine allergic dermatitis, there is a vicious cycle of persistent itching and scratching that may be more common than you think. Recent research has shown that in the US alone, there are approximately 8.2 million medicalized dogs with acute or chronic itch.

WHAT CAUSES CANINE ITCH?

Allergies due to fleas, particles in the environment such as dust mites, and foods are among the most common triggers of itch, which can be either acute or chronic. One type of allergic disease is atopic dermatitis, which can look very similar to other allergic conditions, making the diagnosis challenging for the veterinarian.

By the time a veterinarian is presented with an itchy dog, the owner is usually desperate to find a treatment that is fast, safe, provides relief to the pet, and restores normalcy to the family. For owners of dogs with allergic skin disease, current treatment options have limitations. Treatments may be associated with short-term and long-term side effects or slow onset of action, so pet owners often feel like they are trading one problem for another. A need exists for a new therapeutic approach, which offers quick relief and can be used safely both short-term and long-term.

WHAT ARE CYTOKINES AND JANUS KINASE (JAK) ENZYMES, AND HOW DO THEY CONTRIBUTE TO ITCH?

Historically, allergic skin disease was thought to be a type 1 hypersensitivity reaction mediated by cutaneous mast cells and IgE. However, we now know that cytokines produced by lymphocytes and other cells contribute to canine itch.

Cytokines are secreted signaling proteins that play a key role in cell-to-cell communication; but, their dysregulation can contribute to a variety of diseases. Some cytokines are associated with itch and inflammation, such as those seen in allergic skin disease. When dogs have elevated levels of certain cytokines, they are likely to have itch behavior. Certain itch-inducing, or pruritogenic, cytokines can mediate itching or can signal other cells to release additional mediators of itching and inflammation.

The binding of these cytokines to receptors on the cell surface causes the activation of intracellular enzymes called Janus kinase, or JAK. JAK enzymes, in conjunction with cytokine receptors, are integral to cytokine signaling. Activation of JAK enzymes causes a signal to be sent from the cell surface to the nucleus and propagates the signals that lead to inflammatory and pruritic responses. For instance, JAK-1 is involved in the signaling pathway of many cytokines including Interleukin (IL)-31, a recently identified cytokine that plays a key role in canine itch. Activation of JAK-1 can stimulate the production of proteins that transmit signals to the brain to trigger itching and inflammation of the skin.

TARGETED THERAPIES MAY BE THE ANSWER.

There remains a need for novel therapeutic approaches that provide fast, safe, and effective control of itching and inflammation associated with allergic dermatitis and atopic dermatitis throughout the lifetime of the animal. New therapies that target JAK-1 may decrease the activity of pruritogenic and pro-inflammatory cytokines, rapidly stopping the continuous cycle of itch and inflammation without the side effects seen with current therapies. Breaking the itch cycle will also give the veterinarian time to diagnose the underlying cause of the itch while allowing the dog's skin to heal. Ultimately, this will help improve the quality of life for the dogs and their owners.

CYTOKINES MAY BE THE KEY—GET THE FACTS ON JAK

ZOETIS, a leader in animal health, is at the forefront of innovative solutions in skin disease. To find out more about the itch cycle and breakthrough science that may help control the itch, please visit **www.excellenceindermatology.com**.





Commentary offends some, inspires others

Readers react to "New York Times shines a harsh spotlight on profession's woes."

he Pollyanna approach Kristi Reimer takes to this issue is akin to sticking her head in the sand. Utilizing resources such as the AVMA and the AAVMC may seem like a good idea, but these groups are part of the problem, not the solution. What other explanation would they offer beyond the unfounded, dishonest and speculative position they've taken in the past?

This isn't a question of whether the veterinary profession will survive—of course it will—this is a question of ethics. I'm glad *The New York Times* took the time and had the courage to appropriately investigate this issue. The article offered an accurate review of the state of affairs surrounding the ongoing fleecing of veterinary students by veterinary schools and the banking industry.

As a journalist, I would think Ms.

Reimer would be aware that we haven't had a true system of capitalism in this country for a long time. Therefore, "market forces" won't be allowed to "correct the supply and demand problem." Our government doesn't allow capitalism to function and there's no system for corrective market forces under our increasingly socialistic government. A survey of the facts indicate that the government is providing a bailout on these student loans, but not without collecting taxes on the forgiven loans.

I'm not sitting around wondering why no one is doing anything about this. There's no one to do anything about it. The *Times* article will at least educate the public about the risks involved in pursuing a degree in veterinary medicine.

> **DOCWATSONDVM** via the dvm360.com Community

'm offended by Kristi Reimer's column suggesting that a great attitude will help things get better in veterinary medicine without significant change, work and evolution (actually, revolution because time is short). Her support that the AVMA and AAVMC will solve this in any reasonable time frame is surely not based on observation of the past actions of either group.

As someone who has spent 44 years in veterinary medicine, I'm amazed at how little the profession is aware of the concerns brought forward in the New York Times article. While I agree that having a great attitude is better than

screaming "woe is us," it must be tempered with the facts; the problems are major and have no quick fixes. They won't be solved because people are going to keep having pets or that the world has to feed more people. Unless the profession can provide new delivery systems and value for dollars spent in companion animals—and more than just servicing the agricultural industry by providing whatever they want—we're never going to survive to provide decent careers for talented but starving practitioners.

> clayton44 via the dvm360.com Community

hen it comes to the need for more veterinarians, the real question is, how many graduates are still practicing full time after five, 10, 15, 20 and 25 years? Some time ago, an article in a professional journal proposed this solution:

wanted to commend *dvm360* editor Kristi Reimer on the well-reasoned and encouraging essay she shared about the recent New York Times article about student debt in the veterinary profession. It stands in stark contrast to much of what has been written in the aftermath, which has been a little too bleak and despondent in tone.

As Ms. Reimer observed, the profession of veterinary medicine is

Graduates who don't practice veterinary medicine for at least 20 years full time pay the university back for a proportion of cost the state has spent to educate them.

> Fred Bendick, DVM Kirkwood, Mo.

an essential national resource and it will indeed survive and flourish. As market forces work toward refining the equilibrium of demand and capacity, we need to continue to do all we can to help society understand the myriad ways in which this noble and amazing profession creates a safer, healthier world for people and animals.

Jeffrey Douglas, MS **AAVMC**



he March 2013 article "New rodenticide without antidote alarms pet toxicology experts" looks at an important concern for veterinarians—rodent poisons in their clients' homes.

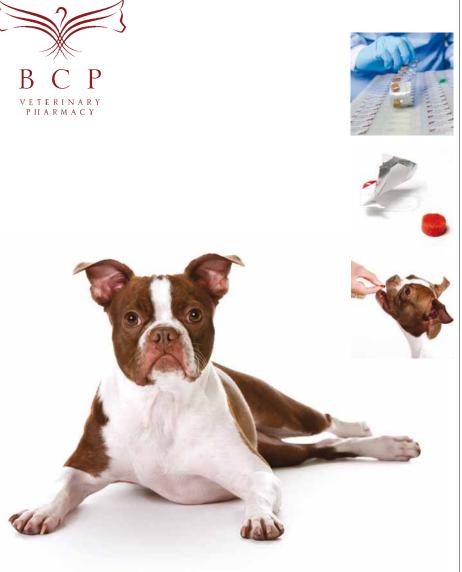
However, veterinarians need to consider the action of the Environmental Protection Agency (EPA) in its entirety. The agency is removing one active ingredient from homeowner products but also requiring that all rodenticides sold to homeowners be in block form in tamper-resistant bait stations.

This requirement will greatly reduce

child and pet exposure to all rodenticides. (Pets won't need treatment if they aren't poisoned in the first place.) Meanwhile, significantly fewer wild animals will suffer as unintended victims of homeowner rodenticide use-raptors, mammalian predators and scavengers as well as nontarget native rodents are being killed by these poisons.

Veterinarians should expect to see significantly fewer cases of rodenticide poisoning once the EPA's requirements are fully enforced.

Barry Kellogg, VMD, Humane Society Veterinary Medical Association





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Mid-Atlantic states agree to uniform racehorse medication rules

List of 24 permitted medications standardizes withdrawal period. By Ed Kane, PhD

n March 12, eight states—New York, New Jersey, Pennsylvania, Massachusetts, Delaware, Maryland, Virginia and West Virginia—pledged to adopt uniform medication rules for racehorses. Facilitated by the Thoroughbred Horsemen's Association (THA), the program is slated to begin by the end of 2013 and be universally implemented by January 2014.

Uniformity of regulations

"Uniformity is critically important to those states of the Mid-Atlantic and Northeast," says THA Chairman Alan Foreman. "We have 18 racetracks that operate within a 200-mile radius of each other, horses moving interstate, and in some instances horsemen who are racing horses in more than one state. If there is any part of the country where there's a need for uniformity of regulation, it's this region."

Bernard Dowd, DVM, a racetrack practitioner serving at Monmouth Park in New Jersey, Parx Racing in Pennsylvania, and Aqueduct Racecourse and Belmont Park in New York, welcomes the simplicity afforded by the new rules. "Sometimes I walk into a barn in the morning with horses going to three states in one day," Dowd says. "Previously we'd have three different regulatory issues occurring in all three states, so this program is very welcome."

The catalyst for the agreement was in part a report from the New York Task Force on Racehorse Health and Safety (see *DVM Newsmagazine*, December 2012). "That was essentially a call to arms for the horsemen, who said, 'We need to implement the recommendations, and we need this to be uniformly done throughout the region," says the THA's Foreman.



Permitted therapeutic drugs

Acepromazine
Betamethasone
(IA only)
Butorphanol
Clenbuterol
Dantrolene
Detomidine
Dexamethasone
Diclofenac (topical)
DMSO

Firocoxib
Flunixin
Furosemide
Glycopyrrolate
Ketoprofen
Lidocaine
Mepivacaine
Methocarbamol
(IV only)
Methylprednisolone

(IA only)
Omeprazole
Phenylbutazone
(IV only)
Prednisolone
Procaine penicillin
Triamcinolone
acetonide
Xylazine

Under the agreement, called the Mid Atlantic Uniform Medication and Testing Program, medications are divided into two categories: (1) controlled therapeutic substances and (2) prohibited substances. The 24 therapeutic medications are those that practicing veterinarians, regulatory veterinarians, industry chemists and pharmacologists say are routinely used and necessary to treat illness or injury in horses. Among the organizations consulted were the American Association of Equine Practitioners (AAEP), the Racing Medication and Testing Consortium, and the

Association of Racing Commissioners International.

Of the 24 therapeutic medications (see list above), furosemide is the only one permitted to be given on race day. And it must be administered under controlled circumstances by a veterinarian designated by the state racing commission to perform that service. "This will keep [other] veterinarians out of the stalls on race day, which is a perception problem for the industry," Foreman says.

All other permitted drugs require a specific withdrawal time prior to race day. And there are some major changes to the

way medications have been routinely used and administered at the racetrack. For example, clenbuterol requires a 14-day withdrawal time. Also, no intraarticular corticosteroid can be administered within seven days of a race. With respect to methylprednisilone acetate, veterinarians and horsemen are strongly warned about its use, and the recommended withdrawal time is at least 21 days. And for systemic corticosteroids such as dexamethasone, the recommendation is 72 hours. Complying with these guidelines will not risk the possibility of a positive drug test.

The AAEP Racing Committee has worked hard to improve racing rules in support of the health and welfare of horses, says Kathleen Anderson, DVM, vice chair of the AAEP Racing Committee and a Maryland practitioner. During the course of those efforts, the need for uniformity of medication rules was apparent. "We felt if we had uniformity, it would close a lot of the loopholes, improve public confidence and perception of racing integrity, and clarify for the owners, trainers and veterinarians what the ground rules were," Anderson says. "Uniformity thus became a primary objective."

Anderson believes that the rules governing corticosteroids will help clarify the environment for veterinarians and improve their ability to assess horses going into races. Regarding clenbuterol, though, "there's a lot of concern among veterinarians that we're removing from our treatment regimen the opportunity to take care of the respiratory diseases we see in racehorses," Anderson says. "What these changes may mean is that some horses will either have more rest or proceed forward less than optimally. The latter is a concern to the health of the horse."

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For the other medications on the list, there aren't major changes to current practice, Anderson says. The rules for tranquilizers may even be an improvement. "It looks as though we'll be able to go closer [to race day before withdrawal], and I think that's absolutely fine, because they're all short-acting medications," Anderson says. "To be able to sedate a horse for shoeing or for a minor injury we might have to stitch up, it will be useful to have those tranquilizers on hand. Similarly, if a horse has a minor gas colic, we can use a small amount of tranquilizer to treat them without a concern prior to race day while staying within the guidelines."

The uniform medication rules also help with race planning, Anderson says. "Currently the clenbuterol rule in Pennsylvania is 72 hours and it's 14 days in New York," she says. This is problematic when a trainer is planning to race a horse in a Pennsylvania race but for a variety of reasons—the race has not filled, the competition is not what was expected, the weather has affected the racing surface—decides to change to a New York race. "The horse will be ineligible in New York if it has been medicated to comply with the Pennsylvania rules," Anderson says. "Uniformity among these eight states of close proximity will make those decisions a lot easier."

Uniform testing, lab accreditation

The agreement also proposes to accredit laboratories to instill uniformity in testing procedures. "That's a big deal," Anderson says. "Prior to this agreement, there was a huge amount of variability regarding states' ability to test for medications. Having uniformity in those procedures will narrow the gap between rules and reality."

The goal is for all laboratories to test the same drugs at the same levels, Foreman says. This will let horses be treated therapeutically while ensuring that no pharmacologically significant drug residue will be present during a race.

According to the THA, the program will require each participating state to amend its current rules and procedures or enact statutes, depending on how medication is regulated in the state. Regulators have agreed to begin the adoption process immediately, with a uniform implementation date of January 1, 2014. (The aboli-

tion of anabolic steroids in racing was implemented in a similar fashion). The THA's expectation is that by January 1, 2014, all laboratories reporting drug testing in the Mid-Atlantic region will be accredited by the Racing Medication and Testing Consortium.

Penalty guidelines

"The final piece of the puzzle that we're still working on is new penalty guidelines, particularly focused on repeat offenders—identifying them, penalizing them or routing them out," Foreman says. "We believe strongly that when the program is implemented—assuming that veterinarians and horsemen adhere to the new system—we will significantly reduce the number of positive tests that we have for the therapeutic substances."

The AAEP's Anderson wants to see uniformity not only in the rules but also in the penalties and the enforcement. "It's one thing to make a set of rules, but if you don't enforce them, they pretty much become a non-entity," she says.

Enthusiastic support

Frank Zanzuccki, executive director of the New Jersey Racing Commission, says his organization enthusiastically supports this recent Mid-Atlantic agreement. "Once implemented, we believe this program will enhance the integrity of the sport and create a safer racing environment for all participants throughout the region," Zanzuccki says.

Virginia Racing Commission veterinarian C. Richard Harden, DVM, says the new agreement "is not going to fill our stands with spectators and build our handle back up, but I think it's a good step to try to enhance the public perception and image of horseracing that has previously been tarnished."

Harden envisions this regional development broadening even further. "If the East Coast enacts this agreement, possibly the West Coast will also, which may bring all racing jurisdictions on the same page regarding the use of therapeutic medications in racehorses," he says.

Dowd says the program is long overdue. "Anything that benefits the industry as a whole is very welcomed, especially the reality and the perception that we're doing the right thing, which we are," he says. dvm360



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Weighing the *cost* of written *prescriptions*

Will patient care suffer or thrive if we say goodbye to our in-house pharmacies?



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our-dollar antibiotics at
Walmart? We can't even
buy them for that price,
much less store and sell them. We're
shutting down our pharmacy business."

With the struggling economy and the entrance of large-scale retailers like Walmart, Target and Kroger into the veterinary pharmacy market, many veterinarians are throwing up their hands when it comes to dispensing medications in their own hospitals.

"I just write the prescription and say 'Here you go," said one veterinarian I talked with recently.

As consumers ourselves, we all know how important it is to do as much with our resources as we possibly can. Why expect our clients to feel differently?

A blessing or a curse?

The belief that veterinarians can't or shouldn't argue with price savings seems to be spreading. As consumers ourselves, we all know how important it is to do as much with our resources

as we possibly can. Why expect our clients to feel differently? Also, from a medical standpoint, those \$4 antibiotics can be a godsend in cases where cheap medications allow people to reallocate limited resources toward important diagnostic tests.

But does this scenario mean we should abandon the practice of dispensing drugs at the time of an appointment? Are there drawbacks to a world where veterinarians only write prescriptions instead of dispensing the drugs they want patients to have? And how would this model impact the pets we care for?

Here's what I thought of as I pondered these questions: One morning two years ago, my wife was out of town and I was on my third day alone with our young daughter. I remember frantically trying to get everything done around the house before vaulting into the car and speeding away toward work via the daycare center.

Fifteen minutes into our commute, my daughter piped up from her car seat in the back, "Daddy, do I need shoes for school?"

"Of course you do," I replied distractedly, focused on the road.

In a happy-go-lucky voice my sweet daughter responded, "Well, I don't

haaaaave anyyyyy."

Our lives are hectic, and we all get overwhelmed sometimes—we even forget simple things like our children's shoes. So it's easy to imagine a pet owner leaving their veterinarian's office with a script in hand and not getting around to filling it for a few days or weeks or months—or ever. Just look at how many prescriptions for human patients go unfilled.

rescriptions

Adhering to patient care

In 2010, Harvard Medical School published a study tracking more than 195,000 prescriptions. The study found that 22 percent of all prescriptions and 28 percent of new, or first, prescriptions went unfilled. A 2011 study in the *American Journal of Medicine* put new prescriptions that go unfilled at 24 percent. On the human side, this lack of action by the patient is referred to as "non-adherence."

Physicians treating human patients are providing prescriptions to alleviate symptoms of illness that people directly experience themselves. Veterinarians, on the other hand, are dealing in medications intended for a silent third

Andrew Roark, DVM | EXAM ROOM CONFIDENTIAL

party—an animal that is practically incapable of verbalizing discomfort, depression or frustration and cannot speak up for itself. If more than one in five prescriptions—one in four for new treatments—aren't being filled when a human is affected, then the probability that prescriptions written for pets will go unfilled seems substantial.

According to a May 2010 article in The New York Times, the best answer human medicine has devised for decreasing non-adherence is simplifying the pharmacy process as much as possible. A 2010 article in Health Services Research illustrated this principle at work, showing how only 5 percent of patients enrolled in Kaiser Permanente of Northern California failed to fill their initial prescriptions. While filling prescriptions at Kaiser Permanente pharmacies did offer some cost savings, the difference in adherence appeared to be predominantly based on patients' ability to retrieve their medications at the same location as, and immediately following, their medical appointment. Given the radical increase in adherence rates when medications are dispensed at the same time and place as the medical exam, it seems irresponsible for us veterinarians to abandon in-house pharmacies without seriously considering the consequences for the pets we treat.

We should always act in the best interest of our patients and provide the best medical care possible. I believe when we have the option to provide medications directly to our clients—whether these medications are for a pet's acute illness, long-term wellness or quality of life preservation—then we should do so.

To do this, we need to keep our pharmacies as competitively priced as we can. We should talk to our healthcare teams about adherence and advocate for dispensing medications we trust so that pet owners leave with the appropriate treatments in hand.

The days of using pharmacy markups to subsidize services that we haven't charged pet owners for may be over (and if this loss drives us to charge more accurately for our knowledge and expertise, maybe that's a good thing), but providing the best care to our patients should never become a thing of the past. For the sake of our patients, let's not shut down the in-house pharmacy just yet. dvm360

Suggested reading

- **1.** Chen PW. When patients don't fill their prescriptions. *New York Times*, May 20, 2010.
- **2.** Karter AJ, Parker MM, Moffet HH et al. New prescription medication gaps: A comprehensive measure of adherence to new prescriptions labstractl. *Health Services Research* 2009;44(5).
- **3.** Fischer, MA, Stedman MR, Lii J et al. Primary medication non-adherence: Analysis of 195,930

electronic prescriptions labstractl. *Journal of General Internal Medicine* 2010; 25(4):284-290. **4.** Sponsored research finds twenty four percent of new prescriptions never filled. CVS Caremark press release, Oct. 26, 2011. Available at: http://info.cvscaremark.com/newsroom/press-releases/cvs-caremark-sponsored-research-finds-twenty-four-percent-new-prescriptions-.

Dr. Andy Roark practices in Greenville, S.C. He is the founder and managing director of veterinary consulting firm Tall Oaks Enterprises. Follow him on Facebook or @DrAndy Roark on Twitter.

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ack Carl, DVM, has owned a companion animal veterinary practice for 22 years in a large Midwestern city. He has a reputation for being an honest, capable practitioner with a loyal clientele.

However, Dr. Carl's city and those around him were hit hard by the recent depression. Jobs disappeared and along with them the discretionary income used for elective pet care procedures. Preventive senior diagnostic testing and elective dentistry all but disap-

His colleague respectfully told him to mind his own business and proceeded to quote the phrase "He who is without sin shall cast the first stone."

peared. Dr. Carl tightened his belt and survived by increasing his practice efficiency. Fortunately, now that the economy is starting to rebound, Dr. Carl and his staff are beginning to see the light of day.

Recently, one of the experienced practice technicians gave Dr. Carl her notice because her husband found a job in another city. Needless to say, Dr. Carl received an abundance of applications from technicians looking for positions. He interviewed and finally decided to hire a technician who had worked for a veterinarian located about 10 minutes away from his practice. His new technician was skilled and quickly became an excellent addition to the clinic. She was not only comfortable in the exam room and surgery suite but was familiar with the business side of veterinary medicine.

Dr. Carl asked his new technician if she had any suggestions that would improve patient healthcare, practice efficiency or both. Because this employee had spent many years in a comparable practice, he believed that her experience could benefit his facility.

She did share one particular suggestion that piqued his interest. It seemed

that her former employer had given his clientele a 10 percent fee discount if they paid for their professional services in cash. She told Dr. Carl that the discounted cash payments were not recorded on the hospital ledger and went directly into the doctor's pocket.

The technician thought these procedures were unusual but was told by her previous employer that, to a greater or lesser degree, no business ever reported every single cash transaction. She accepted his explanation and primarily focused on her healthcare responsibilities to her patients.

Dr. Carl was both angry and flabbergasted. He prided himself on being an honest and ethical veterinarian and reported all of the income that came into his practice. During these difficult economic times, Dr. Carl did not think it was fair that a neighboring practitioner was not paying his fair share of taxes on the income he was receiving this created an unlevel playing field. It was not simply an effort to improve the practice bottom line; it was an illegal act of significant proportions.

Dr. Carl wondered what, if anything, he should do. He had worked very hard to survive in one of the worst recessions in recent years, and now a colleague was conducting business illegally in a manner that had a direct impact on Dr. Carl. Should he look the other way? Should he contact the IRS? He was in a quandary.

Dr. Carl let his anger subside before making any rash decisions. Once he was thinking with a level head, he believed the best thing to do was to attempt to stop his colleague from continuing the illegal practice methods he'd learned of.

Dr. Carl called the offending doctor and told him that it had come to his attention that his 10 percent cash discount offer was in fact a means to collect unreported cash income. Dr. Carl said he would appreciate it if the doctor would stop this practice so all local practitioners would have an equal opportunity to succeed.

His colleague respectfully told him to mind his own business and proceeded to quote the phrase "He who is without sin shall cast the first stone."

Dr. Carl was disappointed and frustrated, but he felt he had wasted enough time on this issue. He decided to move on, continuing his honest ways and knowing there were unscrupulous people in all professions. After all, he told himself, he would never be able to right all the wrongs that crossed his path.

Rosenberg's response

Veterinary clinical practice is a hybrid business model. A veterinary hospital is a medical facility that prioritizes the health and welfare of pet patients, but it's also a for-profit small business that must achieve and maintain a positive bottom line in order to survive. There's no government subsidy and little, if any, third party payment.

Dr. Carl discovered that one of his competitors was stealing from the government to enhance his bottom line. He was doing this by enticing his clientele to make cash payments for services. The combination of these actions caused Dr. Carl to lose clients. The playing field designed by the government, the veterinary community and society was no longer level. Dr. Carl spoke to his colleague and was

rebuffed. Unfortunately, Dr. Carl chose to stop any further efforts to correct what was clearly unfair and illegal.

At this point many would say that pursuing this issue would make Dr. Carl a "snitch." Nonsense. This is simply a term for someone who doesn't have the character to stand up for what is moral and honest. Dr. Carl's colleague

was benefiting himself and his clients by stealing from the government and secondarily from his fellow veterinarians. He'd had his warning. dvm360

Dr. Marc Rosenberg is director of the Voorhees Veterinary Center in Voorhees, N.J. He is a member of the New Jersey Board of Veterinary Medical Examiners.







You manage *things*; you lead *people*

Understanding the difference between the action of management and the art of leadership is crucial to a successful veterinary practice.



Tweet Mike

Scan the code with your mobile device to send a tweet to Dr. Mike Paul. Your question may be answered in this column!

hile the terms "management" and "leadership" overlap a little, they are not the same thing—although you can't have one without the other. Management is tough enough on its own and, frankly, most people never learn to lead.

Management involves making things happen. It refers to planning and implementation in order to build ideas into realities. The role of the leader is more ethereal: to inspire, motivate and create.

In your personal life, you have the need to manage and the opportunity to lead. You may be managing your family budget, but you are leading your children as they develop into young adults. It's the same in your professional life—as a veterinarian you are both a manager and a leader.

Management might have involved dealing with employee absence or skill training.

Leadership involves persuading people that their absence or lack of skills will hold back the shared commitment to patient care.

But until recent years, we veterinarians received very little education in either management or leadership. In my own case, it was a painful learning process. I had to be led to drink from the fountain of management, and only occasionally did I "manage" to lead my practice. I didn't enjoy managing people and my leadership skills developed late. During the years, and at the expense of those around me, I stumbled into roles of leadership.

So what am I doing talking about something that I admittedly don't have a natural talent for? As Richard Bach says in the book *Illusions: The Adventures of a Reluctant Messiah* (Dell, 1989), "We teach best what we most need to know." And leadership is still something I am learning.

As veterinarians or practice owners, all of us have managed individuals or teams in the pursuit of a goal. These management challenges may have

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Michael Paul, DVM | CAN WE TALK?

involved dealing with employee absences or providing skills training. We had specific goals and objectives—but not really a leadership role. Leadership involves persuading people that their absence or lack of skill will hold back the practice's shared commitment to patient care.

The role of a veterinarian should be leadership, not management, but leadership is not a natural sequel to management. You have to want to be a leader. You have to learn to be a leader. And you have to work to be a leader. The core of management is stability-focused and directive in nature—it focuses on telling people what to do. A leader must inspire and convince people that following his or her leadership will result in everyone achieving their goal. While managers often take credit for successes of their team and place blame for shortcomings, a leader gives credit and accepts blame as part of the team.

The goal is to have the people you're leading want what you want. How do you do that? If you're lucky, you can use your natural charm and powers of persuasion, but not all leaders are inherently charismatic. You do have to be good with people—not by trying to build friendships, as a manager might do, but by developing a high "emotional quotient" level and cultivating sensitivity to others. These things come more naturally to some than to others, but they can all be learned.

While managers are often riskaverse—after all, risk makes their job harder—leaders are risk seekers. As leaders we frequently have to walk on thin ice—thoughtfully, carefully,

Find it all here.

Want to read more from Dr. Paul?

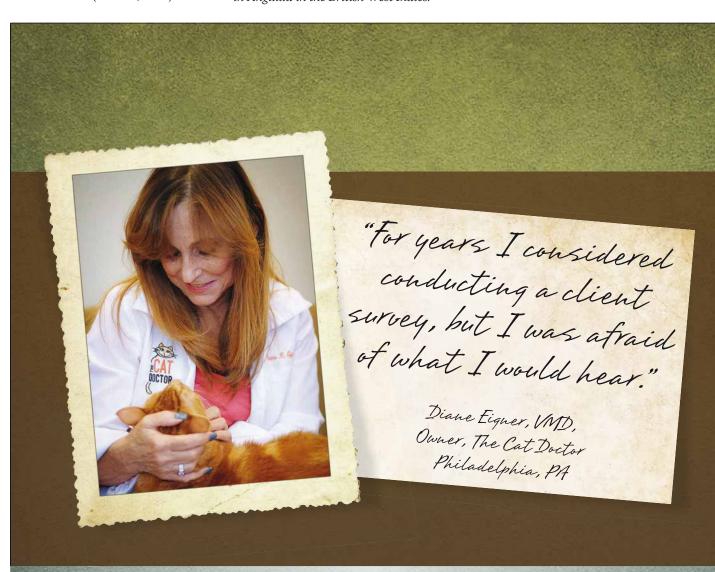
Check out more of his articles at dvm360.com/paul, including:

- >> What is our focus as
- >> How to figure out if you're successful—in veterinary practice or simply in life
- >> Understanding the ripple effect

but without fear. Again, sometimes our personal makeup in terms of risk tolerance plays a part in our suitability to be leaders but, as with people skills, the ability to wisely seek risk is a skill that can be cultivated.

One of the best books on leadership I have read is *On Becoming a Leader* by Warren Bennis (Perseus, 1989). Even if you are an associate, read this and other resources and push yourself to lead. Your time will come. dvm360

Dr. Michael Paul, @mikepauldvm on Twitter, is a nationally known speaker and columnist and the principal of Magpie Veterinary Consulting. He lives in Anguilla in the British West Indies.



"Informed cat owners know how to adapt the home environment to best interact with their cats. We've always felt confident that we consistently communicate key messages about feline wellness."

But when Dr. Eigner used the Partners for Healthy Pets Opportunity online survey tool to strengthen the practice, results showed that she and her healthcare team could do an even better job of explaining the importance of the home environment to cat owners.

Dr. Eigner considers the survey a tremendous value for veterinary practitioners who want to improve communication, enhance client relationships, and deliver the highest possible level of preventive care.

"What Partners for Healthy Pets has done would be too costly to a single practice," Dr. Eigner notes. "The online Resources Toolbox, including the survey tool, is accessible, effective, and totally free. It's a terrific way to build on your success by strengthening the relationship among all stakeholders — staff, clients, and patients."

To read Dr. Eigner's full story, and to learn more about the Practice Resources Toolbox, go to www.partnersforhealthypets.org







Be vigilant with controlled drugs

Substance abuse can easily run rampant in a clinic environment. Make sure you—and your practice—are protected.



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ne of my colleagues recently reminded me that in 2011 I wrote about drug abuse in the workplace and promised a follow-up article. Apparently I forgot to write that second missive. (Possibly due to some brownies I ate on my last trip to Fort Collins?) Nevertheless, based on calls and emails we receive at my law office, the subject keeps expanding, so I will opine further on the topic.

When I field inquiries from veterinarians and technicians around the country with concerns about possible workplace controlled substance abuse, the worried caller is almost never the person perpetrating the abuse—at least that's what they say. Rather, what usually happens is that a staff member notices consistent irregularities in the process of ordering, cataloguing, dispensing or recording the use of one or more substances controlled by state or federal law. While these workers are nervous about the impact of drug improprieties on the practice, what they're more concerned about is the possibility of becoming involved in an investigation of the problem.

Enforcing the law

>>> All it takes

is watchdog-like awareness to

keep substance abuse at bay in

vour practice.

The laws concerning the oversight of a controlled substance once it arrives at a legal wholesale purchaser, such as a medical clinic or pharmacy, are all over the place depending on the jurisdiction. In some states the recordkeeping laws are very strict, but enforcement of those rules is so lax that a doctor can go a lifetime without fielding a single inquiry about who ends up with the controlled products.

Other states are basically providing a free service to the federal Drug Enforcement Administration (DEA) by

conducting spot-checks at veterinary hospitals to make sure they're complying with state veterinary practice laws. While state inspectors are carrying out a clinic visit to make sure the facility is clean and that all veterinarians wear gloves while performing surgery, they also peek at the phenobarbital and hydrocodone records to be sure they're up to snuff. In this way, states bolster the DEA's woefully underfunded compliance efforts.

Regardless of how pharmaceutical records are policed in your state, what veterinarians and technicians really need and want to know is how they can protect themselves when discovering—or even just suspecting—that controlled medications are leaving the clinic in a way that violates the law.

And the concern is certainly legitimate. Every year private medical, dental and veterinary practices are sanctioned for prescription drug law violations. I'm reminded of this fact every time I renew my license to practice veterinary medicine in Florida. That state is so concerned about pharmaceutical abuse that it requires a mandatory continuing education class on the topic as a prerequisite to actually renewing a license.

Signs of trouble

Veterinary staff members who've never witnessed a potential drug abuse problem in the workplace are usually surprised when the indications do show up. They may not realize that these signs indicate anything more than sloppy inventory management or haphazard recordkeeping.

Here's a brief list of some red flags that a genuine problem exists:

> Pages missing from the controlled substance manifest

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





- > A claim that a bottle of a controlled substance has been "lost," "destroyed" or "thrown away by mistake," especially if this occurs with suspicious frequency
- > A doctor or technician insisting that he always log in certain pharmaceutical deliveries when it's not one of his usual clinic tasks
- > Refusal by management to upgrade, or even initiate, a controlled substance log
 - > Missing prescription pads
- > Associates or partners who hold veterinary distributor accounts with delivery addresses other than the veterinary practice location.

Areas of concern

In an earlier era, concerns expressed by an associate veterinarian, staff member or per diem doctor who hinted at controlled drug improprieties might have been met with a polite "none of your business," and that'd be the end of it. Today, newly developed legal theories of vicarious civil and criminal liability can ensnare even the innocent. Workers with no malicious intent can become involved in unwelcome investigation-related hassles—even implications of alleged complicity with unprofessional or illegal activity of coworkers.

Those most at risk, of course, are people who hold professional licenses: veterinarians and credentialed technicians. Due to their higher level of training in the field, licensees may be held to a higher standard of care in instances where the diversion or abuse of addictive medication is, or "should have been," apparent in the workplace.

Also at increased risk is the practice owner, whether a veterinarian or, in places where it is legally permitted, a layperson or corporation. If negligence or inattention to reasonable substance management guidelines results in the harm or death of an employee or another person through tolerated controlled substance diversion, a business or its ownership may have to answer for damages, face criminal sanctions or possibly both.

Protecting yourself

Potential workplace misconduct is a touchy and perilous subject. This is especially the case for nonveterinarian employees at a clinic. For example, if a technician or receptionist feels compelled to alert the boss to concerns that controlled substance abuse may be going on, her job might be placed in jeopardy. The risk is especially great if the boss is either personally involved in illegal behavior or shielding an employee who is.

But doctors in the practice are at risk too. There are student loans to repay and reputations to be protected—becoming known in the professional community as a scheduled-drug Buttinsky may not be the best way to hold onto or obtain a new associate position. The same goes for per diem or relief veterinarians. Those who raise too much of a stink about drug inventory anomalies may scare off future relief clients. Potential customers might start to wonder whether they want a whistle-blower filling in for them while they're away on vacation or attending a conference.

So other than making a huge issue at work about sloppy controlled substance logs and potentially incurring the wrath of higher-ups, what can the innocent licensee or other veterinary clinic employee do to protect herself from getting caught up in workplace drug woes? One or more of these ideas might be worthy of consideration:

- > Licensees can mention in an offhanded way to management that they attended a professional continuing education class about drug inventories and felt it was appropriate to mention that some "firming up" might be needed to bring the clinic into compliance. Providing a written list of specific ideas is a good idea as well. (Keep a copy to show investigators if a certain something eventually hits the fan.)
- > Licensees who spot recordkeeping flaws may want to ask upper management if it'd be possible to have a second team member shadow them when monthly inventories of scheduled substances are conducted. This helps eliminate the licensee—usually a technician—from being included in a list of suspects should drugs be found missing during a site visit by state or federal inspectors.
- > Written prescriptions should be photocopied twice—one copy should be kept in the medical record and the other kept in a chronologically catalogued binder or other permanent record. Remember that prescription mistakes happen all the time and these copies are key to protecting the prescription writer and the clinic from liability for pharmacist error.
- > Veterinarians who witness something they're concerned about may want to ask a second person to assist them when taking controlled substances out of inventory for a procedure that requires anesthesia or when dispensing medications to a client. If that request is routinely made, it's a signal to management that the staff or relief veterinarian is nervous about a lax existing protocol or wants to distance himself or herself from something suspicious.
- > Veterinarians always have the option of prescribing all scheduled drugs rather than dispensing them.

So while no one's immune from the implications of a drug abuse debacle in veterinary practice, just a little bit of prudence and watchfulness can be your best friend—and ultimately protect the business. dvm360

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



Dig into drug abuse

Did you miss Dr. Allen's first column about substance abuse in the workplace? Head over to dvm360.com/substanceabuse for more on the warning signs and dangers of drug abuse in practice, as well as steps you can take to prevent it.







Abbott Animal Health

Transmucosal meloxicam for dogs

Abbott Animal Health's OroCAM (meloxicam) Transmucosal Oral Spray is a veterinary nonsteroidal antiinflammatory drug with transmucosal oral delivery for the control of pain and inflammation associated with osteoarthritis in dogs. The spray is administered via a mist onto the dog's gums or inner cheek, where it is absorbed into the bloodstream. This form of delivery alleviates problems associated with medication administration, including improper swallowing or digestion, uneaten treated food, spit-out pills and the risk of other household pets ingesting medication, Abbott officials say.

For fastest response, call (888) 299-7416 or visit abbott.com



Deramaxx

Deracoxib supplies

Novartis Animal Health has returned to full inventory levels for Deramaxx (deracoxib), its popular nonsteroidal anti-inflammatory drug (NSAID) for the control of pain and inflammation associated with canine osteoarthritis. Veterinary clinics nationwide now have renewed and unrestricted access to the first coxib-class NSAID introduced in the U.S. market.

For fastest response, visit ah.novartis.us



Bioniche Animal Health

Canine mammary cancer treatment

Bioniche Life Sciences, a Canadian biopharmaceutical company, is offering its Immunocidin canine oncology therapy for general practice veterinarians. Immunocidin, an immunotherapy for the intratumoral treatment of mixed mammary tumor and mammary adenocarcinoma in dogs, is based a proprietary mycobacterial cell wall technology. A recent Bioniche survey of U.S. veterinarians showed that mammary carcinoma is the third-most-common cancer seen, with an average of two cases per month. For fastest response, call (888) 549-4503



Fujifilm Medical Systems

Computed radiography

Fujifilm Medical Systems has released a new computed radiography reader, the FCR Prima-T2. The new model offers enhanced processing speeds of up to 73 IPs per hour while maintaining the system's easy-to-use capabilities and high functionality. The product is compact and lightweight and can be installed just about anywhere, providing an ideal solution for low- to mid-volume imaging needs.

For fastest response, visit fujimed.com



La Boit Specialty Vehicles Mobile clinic

La Boit Specialty Vehicles Inc. introduces the 24' La Boit Sprinter mobile veterinary clinic. The Sprinter features a Mercedes 3.0-liter blueTEC diesel engine that operates at just 15 mpg. It comes standard with a 5,000-watt diesel generator, full surgery suite, and a custom-built full-size entry door with a folding electric step that features an

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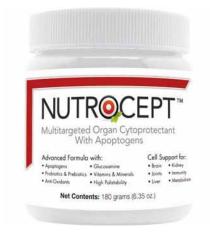


Kinetic Vet

Joint supplement chew for dogs

Kinetic Vet introduces Complete Soft Chews, a joint supplement with a concentrated formula that allows for fewer chews to be given with improved results. Kinetic Vet formulated the new chew to be soft enough to hide medications inside but has a rich liver flavor that makes it a beneficial treat dogs love.

For fastest response, visit kineticvet.com



Functional Nutriments, LLC

Canine cytoprotectant

Nutrocept is a nutraceutical manufactured by Functional Nutriments offering aging cells daily support in a highly palatable, easy-to-administer powder. Nutrocept's formula of apoptogens includes luteolin, curcumin, silymarin and gingerols.

For fastest response, call (808) 660-4230 or visit functional nutriments.com



Nelco Vet

Allergy treatment

Nelco Vet introduces its USDAapproved sublingual allergy treatment product, Allerpaws, a customized prescription with a metered swivel spray dispenser delivery system.

For fastest response, call (888) 708-7297



Freedom Health

Colic veterinary formula

Freedom Health has launched Succeed Veterinary Formula, an advanced version of its Succeed digestive conditioning supplement. The new product combines the original product with omega-3 fatty acids to support the integrity of the mucosal lining througout the digestive tract. The Succeed Healthy Gut Commitment, a new program available for veterinarians, provides reimbursement of up to \$15,000 for colic-related veterinary services for horses that have been continuously receiving Succeed Veterinary Formula.

For fastest response, visit succeed-vet.com



Functional Nutriments, LLC

Cancer-fighting nutraceutical

Apocaps, from Functional Nutriments, is a nutraceutical designed to enhance quality of life and longevity as a standalone palliative supplement or as part of a comprehensive care program in dogs diagnosed with cancer. Apocaps induces apoptosis (cancer cell suicide) through a formulation of apoptogens that include luteolin, apigenin, curcumin, silymarin and gingerols.

For fastest response, call (808) 660-4230 or visit functional nutriments.com

Pharmaceuticals



BCP Veterinary Pharmacy Flavored cicapride

Flavored cisapride formulations

BCP Veterinary Pharmacy offers cisapride compounded into flavored, chewable VetChews, flavored oral suspensions, transdermal gels or capsules for administration to cats and dogs. For fastest response, call (800) 481-1729 or visit bcpvetpharm.com

Medical/surgical instruments and supplies



Vision USA LED clip-on headlight

Vision USA introduces the Universal Mini Lana LED clip-on headlight with sport wrap waterproof loupe at 2.5X or 3.5X magnification. The LED clip-on is 50,000 LUX and is adjustable. The lightweight polycarbonate lenses are anti-scratch-coated and the loupe is waterproof to ensure ease of cleaning and disinfecting. High-resolution optical clarity, great depth of field, flip-up adjustable nose bridge, pupil distance and fully adjustable viewing angle all allow for perfect optical alignment.

For fastest response, call (800) 257-5782 or visit visionus asupplies.com

Diagnostics, laboratory, imaging equipment and supplies



IDEXX

Bovine tuberculosis test

The U.S. Department of Agriculture has approved the IDEXX *M. bovis* Ab Test for the detection of bovine tuberculosis in TB-affected herds. With this approval, the IDEXX *M. bovis* test is now available in most countries worldwide.

For fastest response, visit idexx.com



Misco

Refractometer

Misco introduces its Digital-Dairy line of refractometers designed to help dairy farmers and ranchers rear healthy calves. Only a couple of drops of sample are necessary to fill the Digital-Dairy's stainless-steel sample well. The sapphire measuring surface will withstand years of wear. A simple user-friendly interface consists of two buttons: one to take readings and the other to step through various menu options. A large 24-character backlit LCD display is easily read, even in dim light, while an evaporation cover helps prevent evaporation. For fastest response, call (216) 831-1000 or visit misco.com

Computer software, Web tools and educational materials



U.S. Cremation Equipment Cremation website

U.S. Cremation Equipment recently launched a redesigned website to better serve veterinarians who provide cremation services. The new site is more user-friendly, has an updated graphic design and provides easy-to-access information. Visitors are able not only to view and learn of the full range of available products but also download a detailed brochures in PDF format about any product of interest.

For fastest response, visit uscremationequipment.com



Direct PetCare

Wellness plans

Direct PetCare has created a wellness plan program that will increase a veterinary practice's bottom line and provide greater customer satisfaction levels with no cost to the practice. If the plans do not fit a practice's specific needs, the medical plan toolbox can be used to create the private plan a hospital wants. Direct PetCare offers comprehensive functionality on a cloud-based system. For fastest response, visit direct petcare.com



Brakke Consulting

Veterinary drug compounding report

Brakke Consulting has released a study for purchase providing an overview of drug compounding in veterinary medicine. The study, "Veterinary Drug Compounding," includes information from published documents, extensive industry interviews and surveys of small animals and equine veterinarians. The report includes market size estimates, profiles of leading compounding pharmacies, an overview of regulatory oversight and veterinary usage of and opinion regarding compounded medications.

For fastest response, visit brakkeconsulting.com

Company news

Butler Schein Animal Health becomes Henry Schein Animal Health

enry Schein, Inc., announces that Butler Schein Animal Health will be rebranded as Henry Schein Animal Health. The rebranding process will take place throughout 2013.

"This transition from Butler Schein Animal Health to Henry Schein Animal Health underscores our increasing strength in the global animal health market and our commitment to be a valuable resource to our customers and supplier partners around the world," says Stanley M. Bergman, chairman of the board and chief executive officer for Henry Schein. "We now serve 68,000 veterinary customers across 14 countries, delivering tailored solutions that combine our global resources with local market knowledge. This rebranding preserves the rich heritage of Butler Schein and links our United States operations more closely with our market-leading

animal health businesses throughout Europe and Australasia."

Butler Schein Animal Health was created in 2010 through the merger of Butler Animal Health Supply, which included The Butler Company and Burns Veterinary Supply, and Henry Schein Animal Health, which included NLS Animal Health, and immediately became one of the leading U.S. companion animal health distributors.

It represents the largest component of Henry Schein's global animal health business. Henry Schein also is the leading animal health provider in Australia, New Zealand, the Netherlands, Belgium, Germany, Switzerland, Ireland and the Czech Republic, with operations in Spain, Portugal, the U.K., France and Austria. In addition, Henry Schein is a leading global provider of animal health practice management software solutions.

Ceva Animal Health launches Vectra multimedia campaign

eva Animal Health has launched a multimedia campaign to help educate pet owners and drive traffic to participating veterinary clinics. The Vectra brand will be supported by national print, broadcast and online advertising with a "first dose free" coupon program. Print ads will be featured in consumer publications: Rachel Ray's Everyday, Dog Fancy, Better Homes & Gardens, Ladies Home Journal and Southern Living. The TV campaign features spots on CBS, NBC, Animal Planet, the Food Network, TLC, Lifetime Networks,

the Hallmark Channel and HGTV.

The Protect the Love ad campaign is designed to make it easier for veterinarians to help clients protect the pets they love from parasites. The commercial speaks to the special love between people and pets and invites pet owners to visit firstdose-free.com to download a coupon for their first free dose of Vectra.

Veterinarians who would like to participate in the program should contact their Ceva representative or call (800) 999-0297. For more information on Vectra brand products visit vectrapet.com.



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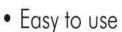
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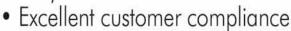


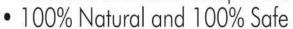
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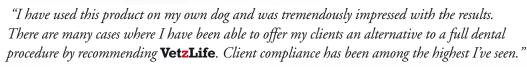








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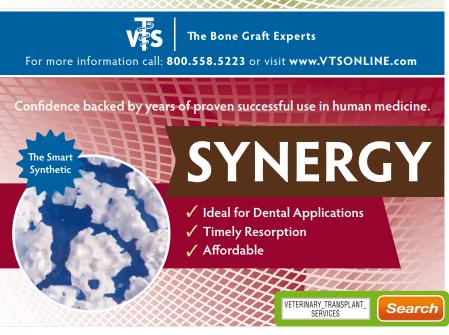
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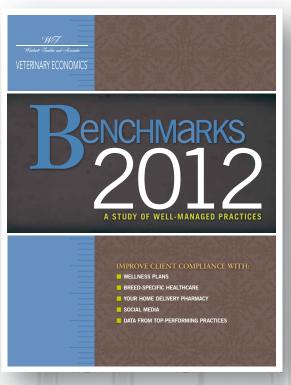
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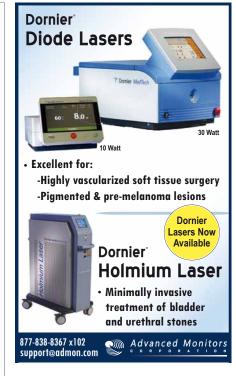
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Words to the wise

A monthly collection of quotes and citations

By Carl A. Osborne, DVM, PhD, DACVIM



Hypocrite! First extract the rafter from your own eye, and then you will see clearly how to extract the straw that is in your brother's eye.

Luke 6:42

We seldom weigh our neighbor in the same balance as we do ourselves.

Thomas á Kempis

- Instead of criticising by speech, to show someone else a better way to do a thing would be of greater value.
 John Wanamaker
- There is an unfortunate disposition in man to attend much more to the faults of his companions that offend him, than to their perfections which please him.

Lord Greville

Silence is sometimes the severest criticism

Charles Buxton

- Just because you have the right to do it, doesn't mean it's right to do it. Charles Caleb Colton
- Children have more need of models than of critics

Joseph Joubert

Criticize others in a manner that you would want them to criticize you.

Matthew 7:12

It is a badge of honor to accept a valid criticism.

Proverbs 25:12

Please send contributions
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fax (612) 624-0751
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Animal Medicine 1-Day Meeting Sanford, NC ncasam.org (910) 452-3899

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May 15-18 AAVA-IVAS Int'l Conference on Vet. Canine Sports Medicine Coral Springs, FL caninerehabinstitute. com (888) 651-0760

May 19-24 NAVC Institute Orlando, FL NAVC.com (352) 375-5672

May 19-24

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AND IN THIS CORNER, Grandpa with the cane

This old man was about to open a can of whoop a** in my parking lot.

o you ever feel like someone's always upset or something's always broken at your clinic? We have six veterinarians at our place now and enough employees to fill two softball teams. These days my job seems to be playing peacemaker and fixing all the broken stuff. It's a hard enough job inside the clinic, let alone when trouble spills into the parking lot.

This day began like all the others. People and trailers came and went, and we did what we could to make everything go smoothly—until the red car arrived. Out from this vehicle a furious

we had no control over how she drove. The old man let loose another string of cuss words. He said the trailer had just run him off the road and he was going out there to kick someone's a**.

It just so happened that the lady who drove that trailer was meaner than a snake, and I predicted that she would take no guff from this cane-carrying hothead. Boy, was I right.

The horse clinic staff had no idea what was up with Papaw as he ambled across the parking lot toward Mrs. Kimble, the owner of the offending trailer. But they were about to find out.

"Grandad replied that if Mrs. Kimble were a man, he would whip her fanny. Mrs. Kimble hollered back, "Don't let that stop you, big boy!"

old man emerged brandishing a cane and threatening to call the police.

Over the years I've had a lot of irate clients, but no one has ever threatened to get the law involved. What could have set this old rascal off? Turns out he was telling our secretary that the people who worked at our clinic should be put in jail for the way they drove around town.

The secretary tried to get to the bottom of the situation, explaining that it couldn't be anyone from the clinic because we were all—well—working, and no one was on the road. His reply included many heavy-duty cuss words and repeated jabs in the direction of a trailer currently parked outside next to the horse clinic.

The owner of said trailer was a client, and the secretary explained that

The first staff member who noticed our visitor wasn't sure what to make of him—an old dude with a cane screaming profanities and pointing at the trailer. So she got another staff member to observe the scenario with her. As soon as the geriatric gentleman made it to the horse trailer, he began clubbing the side of it with his cane.

This, of course, sparked the attention of Mrs. Kimble. She approached the scene with every hackle raised and was already hollering out her own volley of cuss words. Now all the staff gathered to see what would happen next. They didn't know why Grampaw was clubbing the trailer, but they were definitely ready to referee.

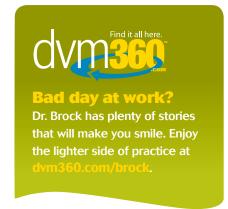
Grandad yelled that Mrs. Kimble had run him off the road with the giant pickup and trailer. Mrs. Kimble yelled

that he'd cut her off and was going too slow. Grandad exclaimed that he was within the law and she was a road hog. Mrs. Kimble exclaimed that if he hit her trailer again she was gonna take that cane and whip his a** with it. Grandad replied that if Mrs. Kimble were a man, he would whip her fanny. Mrs. Kimble hollered back, "Don't let that stop you, big boy!"

The ruckus brought another client out of the barn. She began yelling at Papaw too, because apparently she'd witnessed the entire event while driving behind the pair of them. And this client was just as loud as Mrs. Kimble. Now there were two screaming women and an occupant of the Lamesa old folks' home having it out in the Brock Veterinary Clinic parking lot.

We were finally able to pry them all apart. We told them if they were going to fight, they had to go across the street to do it. It took more than an hour to get the place back to normal. Geesh. I don't know what happened on the road, but I do know it's hard to run a vet clinic sometimes. dvm360

Dr. Bo Brock owns Brock Veterinary Clinic in Lamesa, Texas.



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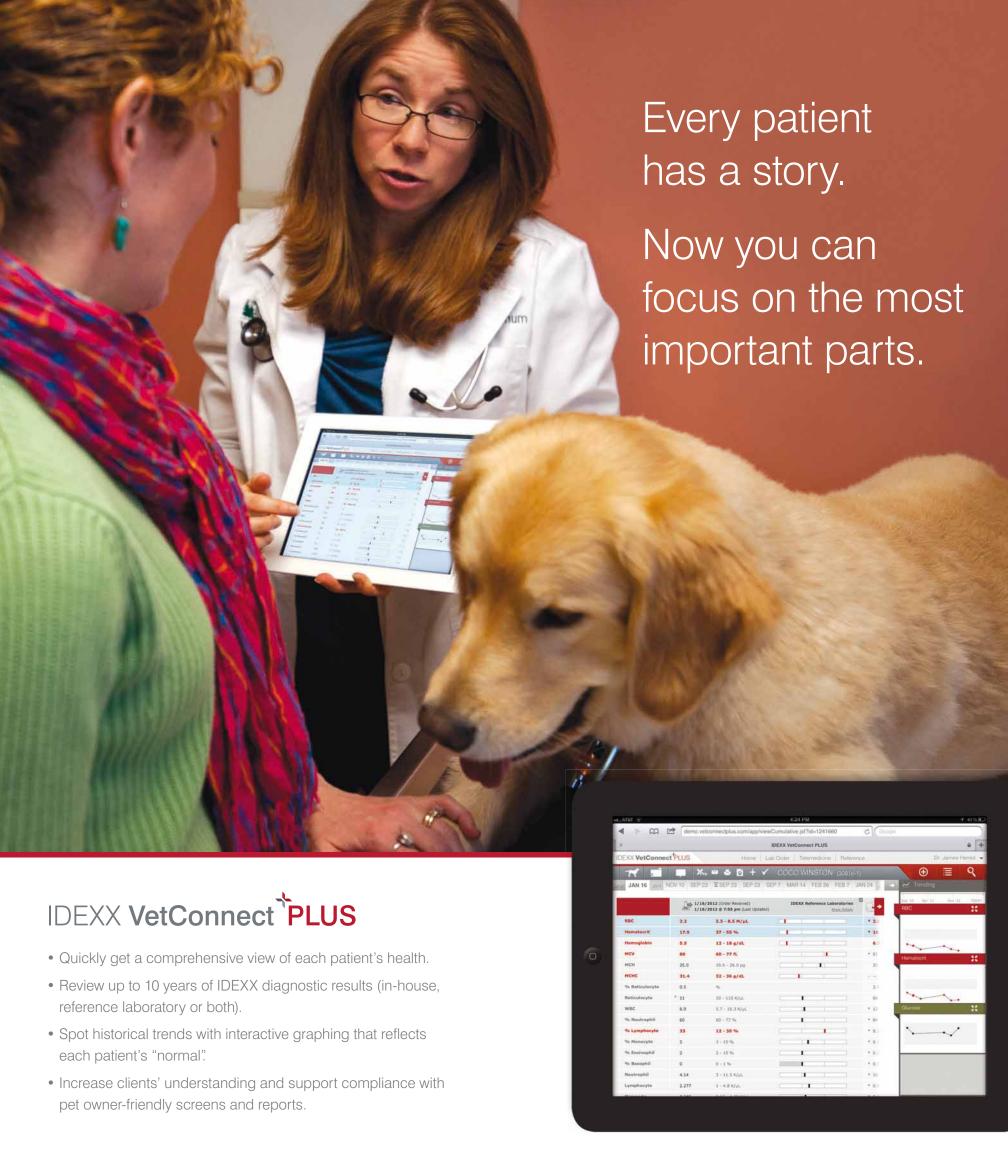
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