

The aftermath of the Louisiana floods

Volunteers keep hope afloat for people and animals affected by historic flooding

page 6



October 2016 | Volume 47 | Number 10 | dvm360.com

Every veterinarian has her day in court

When animals are victims of abuse, you may be called on to be their voice to speak to their emotional—as well as physical—suffering.

By Portia Stewart, Team Channel Director

Editor's note: This article contains graphic descriptions of animal suffering for the purpose of educating veterinary professionals on how to identify, report and prevent animal cruelty. Reader discretion is advised.

The pictures are haunting. A 3- to 4-month-old male pit bull, shot six times, hung from the fence outside an abandoned house by his black vinyl collar, his intestines spilling like a waterfall from his abdomen. The burned carcass of a spaniel trapped in her kennel when her owner attempted suicide by consuming sleeping pills and setting fire to the house—twice. The owner survived. The dog did not.

From a legal standpoint a key component of any animal abuse case is to match up the state's

continued on page 29>



More than rehabilitation

A conversation with a free-ranging wildlife veterinarian

This targeted position manages disease in wildlife populations, keeping their health and safety at the forefront. By Katie James

continued on page 30 >



Dr. Joseph Bojrab remembered as expert educator

page 10



Raising the bar on equine veterinary care

page 22



In this job, lifestyle matters, but work ethic does too

page 38



Beware the board: 6 tips to survive a state inquiry

page 44

STAY ON GARD

against heartworm disease
PLUS hookworms
and roundworms.



PREVENTS
HEARTWORM DISEASE



TREATS AND CONTROLS
3 SPECIES OF HOOKWORMS



TREATS AND CONTROLS
2 SPECIES OF ROUNDWORMS



#1 RECOMMENDED HEARTWORM
DISEASE PREVENTIVE¹



SAFE FOR PUPPIES
AT 6 WEEKS



¹ Data on file at Merial.

©HEARTGARD and the Dog & Hand logo are
registered trademarks of Merial.
©2015 Merial, Inc., Duluth, GA. All rights reserved.
HGD15PRETESTTRADEADS (01/16).

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

Heartgard®
(ivermectin/pyrantel) **Plus**



FROM THE EDITOR

5 | Director's cut

Social media updates for 2016

NEWS

6 | Disaster relief

The aftermath of the Louisiana floods

10 | Obituary

Dr. Joseph Bojrab remembered as expert veterinary educator

14 | Market trends

State of the veterinary profession: Euthanasia in practice

16 | Health

Survey: Pet owners value vet care when they understand their own health benefits

Colorado State will host veterinary wellness summit

17 | Food animal

New business-focused certification available for cattle veterinarians

18 | Education

Texas Tech forms steering committee for proposed new veterinary school

News briefs: Sheila Allen retires from UGA; Midwestern names Thomas Graves as dean

20 | Market trends

Private investment comes to another multipractice group

New tool compares vet school costs



21 | Veterinary headlines

First documented identical twin dogs delivered in South Africa

22 | Hospital design

Raising the barn on equine care

28 | Veterinary business

Benchmarks 2016 shows strong revenue growth, higher staff levels



ON THE COVER

More than rehab: A conversation with a wildlife veterinarian

» This targeted position manages disease in wildlife populations, keeping their health and safety at the forefront. **cover, page 30**

A veterinarian's day in court

» When animals are victims of abuse, you may be called on to be their voice when it comes to describing their level of suffering. **cover, page 29**

MEDICINE360

The small animal section begins after **page 50**.

M1 | Rehabilitation 10 easy ways to promote your rehab services

M5 | Orthopedics Two ways to mess up a limping puppy

M6 | Behavior The four F's of stress in pets

M7 | Diagnostic imaging Ultrasound and CT key to revealing the mystery behind a dog's sore left side

M8 | Gastroenterology A quick guide to gastric acid suppression

EQUINE360

The equine section begins after **page 50**.

E1 | Surgery A look at Rood & Riddle Saratoga

E6 | Internal medicine 15 racehorses positive for piroplasmiasis

E8 | Equine life 11 things you love about equine medicine

50 | Veterinary business

6 key lessons from my year of wellness plans

51 | Veterinary headlines

McLoven the Stud Muffin, Agent Jack Meower chosen as wackiest pet names

News briefs: HSVMA forms new coalition; no link found between antibiotic use in animals, resistance in people

COMMUNITY

32 | Commentary

In this profession, life is your treasure map

34 | Feedback

My experience: The AVMA doesn't care about the gender wage gap
Plus: A response from the AVMA

Dark shadows still haunt this veterinarian whose boss abused drugs

SPECIAL CONTRIBUTORS



38 | Old school, new school

In this job, lifestyle matters, but work ethic does too
Jeremy Campfield, DVM

40 | AVMA eye on economics

Student debt: Good for the economy?
Michael Dicks, PhD

44 | The dilemma

Beware the board
Marc Rosenberg, VMD

46 | Letter of the law

Glass half full advice for young DVMs
Christopher J. Allen, DVM, JD

66 | Stampede

On the loose: A wild pack o' wieners!
Bo Brock, DVM

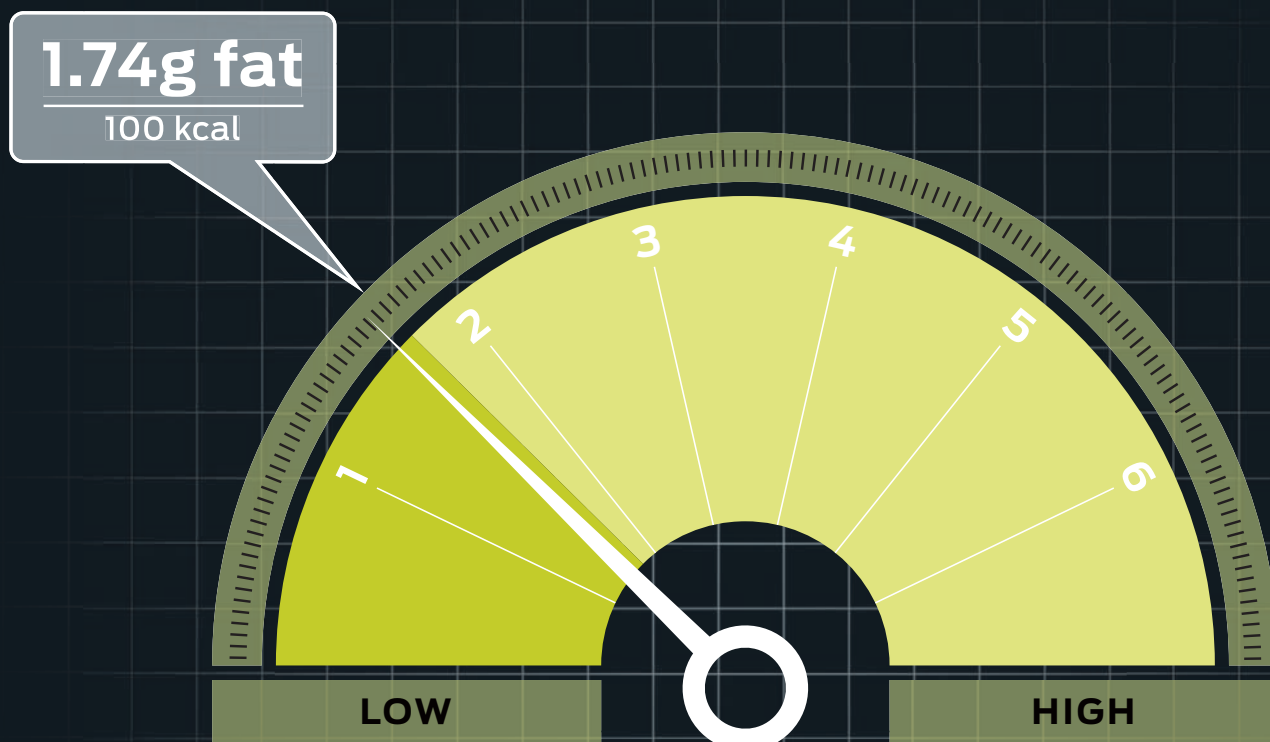
READER SERVICES

65 | Calendar

PRODUCTS360

52 | The latest veterinary products

Lowest Fat. Period.



- ✓ Low Fat
- ✓ High Total Digestibility
- ✓ Prebiotic Fiber

Purina® Pro Plan® Veterinary Diets EN Gastroenteric Low Fat Dry Canine Formula

Introducing a formula with the lowest fat (g/100 kcal) of any dry GI-focused, canine therapeutic diet on the market†, formulated to nutritionally manage patients when fat digestion is compromised. For patients with pancreatitis, hyperlipidemia and lymphangiectasia, a low-fat diet can make a world of difference.

From the first hydrolyzed diet for dogs with food allergies to the #1 recommended probiotic for pets*, Purina Pro Plan Veterinary Diets offers a comprehensive line of effective options for patients with GI issues, each led by purpose and backed by science. [Learn more at PurinaProPlanVets.com](https://www.purinaproplanvets.com)

†Comparison based on values published in PPVD Product Guide 2015 (average nutrient content), Hill's Key 2016 (average nutrient contents), Royal Canin Product Guide 2016 (typical analysis)

* Millward Brown Veterinary Tracker, Fall 2015



PURINA®
PRO PLAN®
VETERINARY
DIETS

Mission

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



Neal Award Winner
2006
2008-2012



Neal Award Finalist
2006-2012

Content

Editor/News Channel Director | **Kristi Reimer**
kristi.reimer@ubm.com

Content Manager | **Adrienne Wagner**
Senior Content Specialist | **Jennifer Gaumnitz**
Associate Content Specialists | **Katie James, Sarah Dowdy**
Assistant Content Specialist | **Hannah Wagle**
Clinical Content Manager | **Heather Lewellen, DVM**
Clinical Techniques Course Manager | **Jennifer Vossman, RVT**
Digital Content Director | **Jessica Zemler**
Digital Design Director | **Ryan Kramer**
Digital Design Manager | **Alison Fulton**
Multimedia Producer | **Troy Van Horn**

Contributing Authors | Advisory Board

Christopher J. Allen, DVM, JD | **Kenneth L. Marcella, DVM**
Brett Beckman, DVM, DAVDC, DAAPM | **Michael A. Obenski, VMD**
Jan Bellows, DVM, DAVDC | **Carl A. Osborne, DVM, PhD, DACVIM**
Anthony Carr, DVM, DACVIM | **Karen L. Overall, VMD, PhD, DACVB**
Karyn Gavzer, MBA | **Michael Paul, DVM**
Marsha L. Heinke, DVM, CPA | **Michael H. Riegger, DVM, DABVP**
Alice M. Jeromin, DVM, DACVD | **Gerald M. Snyder, VMD**
David M. Lane, DVM, MS | **James F. Wilson, DVM, JD**

Sales

Sales Director | **David Doherty**
(913) 871-3870 | david.doherty@ubm.com
Account Manager | **Angie Homann**
(913) 871-3917 | angie.homann@ubm.com
Account Manager | **Angela Paulovcin**
(440) 891-2629 | angela.paulovcin@ubm.com
Account Manager | **Terry Reilly**
(913) 871-3871 | terry.reilly@ubm.com
Account Manager | **Heather Townsend**
(913) 871-3874 | heather.townsend@ubm.com
Digital Data Analyst | **Jenny Shaffstall**
913-871-3854 | jenny.shaffstall@ubm.com
Sales/Projects Coordinator | **Anne Belcher**
(913) 871-3876 | anne.belcher@ubm.com
Books/Resource Guide Sales | **Maureen Cannon**
(440) 891-2742 | maureen.cannon@ubm.com

Marketing

Marketing Director | **Brenda Andresen**
brenda.andresen@ubm.com
Marketing Designer | **Andrew Brown**
Marketing Copywriter | **Tim English**

UBM Americas, Veterinary

Vice President & Managing Director | **Becky Turner Chapman**
913-871-3810 | becky.turnerchapman@ubm.com
Vice President, Digital Product Management | **Mark Eisler**
Group Content Director | **Marnette Falley**
Medical Director | **Theresa Entriiken, DVM**
CVC Director | **Peggy Shandy Lane**
Business Manager | **Chris Holston**

UBM Americas, Life Sciences Group

Executive Vice President &
Senior Managing Director | **Tom Ehardt**

Subscriber Services: Visit dvm360.com to request or change a subscription, or call our Customer Service Department toll-free at (888) 527-7008. **Reprints:** Call 877-652-5295 ext. 121, or write to bkolb@wrightsmedia.com. Outside the U.S. and U.K., direct-dial (281) 419-5727 ext. 121. **Books and Resource Guides:** Visit industry-matter.com. **List Rental Sales:** Call Anne Belcher at (913) 871-3876, or write anne.belcher@ubm.com. **Editorial Offices:** UBM Americas, Veterinary, 8033 Flint, Lenexa, KS 66214; 913-871-3800. **Websites:** dvm360.com; TheCVC.com; UBMAmericas.com.



UBM



DIRECTOR'S CUT | Kristi Reimer

Social media updates for your practice today

Hints to help you track what's changed—and what hasn't.

At the recent CVC Kansas City, veterinary marketing expert Eric Garcia, owner of Simply Done Tech Solutions, gave a talk on what's new in social media for veterinary practices. Well, social media is a moving target for media groups as well as small business owners, so I thought I'd sit in and see how outdated my own thinking was when it came to Facebook, Twitter and the like. Fortunately, the situation was better than I'd thought. In case you also have a nagging feeling things are changing faster than you can keep up, I thought I'd pass along what I learned. Maybe you'll feel better too.

The good news is that Facebook is still by far the most important social media platform, even though it seems old and stodgy in the ephemeral world of social media. (How many of you are seeing posts like this: "Kristi, here's a Facebook memory from eight years ago." *Eight years?* Has it really been that long?)

The upshot? If you've invested significantly in creating a presence on Facebook for your clients, you're in great shape. It's not really "cool" anymore among the young and trendy, but it's essential for businesses that want to be found when customers go to look for information about a service provider and then want to build a relationship with that business. As Garcia put it, "Millennials are trying to leave Facebook, but they can't. They always come back."

Here's a significant update that I can't say I was sorry to hear about: Twitter is no longer considered an important marketing tool. "I am not recommending Twitter for veterinary practices anymore," Garcia says. "There's not enough engagement from clients to justify the amount of time required."

Garcia's comments resonate with my own research and experience. It seems like every article I read about social media states that Twitter has changed

from its origins enough that people are no longer using it for those ongoing conversations like they once did. So if you haven't seen much return from Twitter, feel free to scratch it off your list. (That said, if you've built a Twitter presence that's driving business and engaging clients, continue by all means!)

That leaves Instagram (it's worth it if you make sure the images belong to you—invest in a clinic camera so you're absolutely sure), Pinterest (ditto), SnapChat (not worth it—the primary user is 16 years old: not your target market) and YouTube (the world's second-largest search engine is worth utilizing if you are video-inclined; again, use a clinic camera to make sure the videos are truly yours).

See, that wasn't so bad, was it? **dvm360**



Missing Dr. Obenski's column already? We can help.



The maestro of mirth's legacy lives on

Michael Obenski, DVM may have retired from his column in **dvm360** but you can still enjoy ten years of unbelievable—but-true stories from the examination room and beyond.

For you, for your practice—share this classic compilation of more than 130 columns with anyone who appreciates the lighter side of veterinary practice! (\$29.95, free US shipping.)

go to industrymatter.com/obenski
or call 1-800-598-6008

Keeping your head above water: The aftermath of the Louisiana floods

Heartgard[®]
(ivermectin/pyrantel) **Plus**

CHEWABLES

CAUTION: Federal (U.S.A.) law restricts this drug to use by or on the order of a licensed veterinarian.
INDICATIONS: For use in dogs to prevent canine heartworm disease by eliminating the tissue stage of heartworm larvae (*Dirofilaria immitis*) for a month (30 days) after infection and for the treatment and control of ascarids (*Toxocara canis*, *Toxascaris leonina*) and hookworms (*Ancylostoma caninum*, *Uncinaria stenocephala*, *Ancylostoma braziliense*).
DOSAGE: HEARTGARD[®] Plus (ivermectin/pyrantel) should be administered orally at monthly intervals at the recommended minimum dose level of 6 mcg of ivermectin per kilogram (2.72 mcg/lb) and 5 mg of pyrantel (as pamoate salt) per kg (2.27 mg/lb) of body weight. The recommended dosing schedule for prevention of canine heartworm disease and for the treatment and control of ascarids and hookworms is as follows:

Dog Weight	Chewables Per Month	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 after administration to ensure that part of the dose is not lost or rejected. If it is suspected that any of the dose has been lost, redosing is recommended.
HEARTGARD Plus should be given at monthly intervals during the period of the year when mosquitoes (vectors), potentially carrying infective heartworm larvae, are active. The initial dose must be given within a month (30 days) after the dog's first exposure to mosquitoes. The final dose must be given within a month (30 days) after the dog's last exposure to mosquitoes.
When replacing another heartworm preventive product in a heartworm disease preventive program, the first dose of HEARTGARD Plus must be given within a month (30 days) of the last dose of the former medication.
If the interval between doses exceeds a month (30 days), the efficacy of ivermectin can be reduced. Therefore, for optimal performance, the chewable must be given once a month on or about the same day of the month. If treatment is delayed, whether by a few days or many, immediate treatment with HEARTGARD Plus and resumption of the recommended dosing regimen will minimize the opportunity for the development of adult heartworms.
Monthly treatment with HEARTGARD Plus also provides effective treatment and control of ascarids (*T. canis*, *T. leonina*) and hookworms (*A. caninum*, *U. stenocephala*, *A. braziliense*). Clients should be advised of measures to be taken to prevent reinfection with intestinal parasites.
EFFICACY: HEARTGARD Plus Chewables, given orally using the recommended dose and regimen, are effective against the tissue larval stage of *D. immitis* for a month (30 days) after infection and, as a result, prevent the development of the adult stage. HEARTGARD Plus Chewables are also effective against canine ascarids (*T. canis*, *T. leonina*) and hookworms (*A. caninum*, *U. stenocephala*, *A. braziliense*).
ACCEPTABILITY: In acceptability and field trials, HEARTGARD Plus was shown to be an acceptable oral dosage form that was consumed at first offering by the majority of dogs.
PRECAUTIONS: All dogs should be tested for existing heartworm infection before starting treatment with HEARTGARD Plus which is not effective against adult *D. immitis*. Infected dogs must be treated to remove adult heartworms and microfilariae before initiating a program with HEARTGARD Plus.
While some microfilariae may be killed by the ivermectin in HEARTGARD Plus at the recommended dose level, HEARTGARD Plus is not effective for microfilariae clearance. A mild hypersensitivity-type reaction, presumably due to dead or dying microfilariae and particularly involving a transient diarrhea, has been observed in clinical trials with ivermectin alone after treatment of some dogs that have circulating microfilariae.
Keep this and all drugs out of the reach of children.
In case of ingestion by humans, clients should be advised to contact a physician immediately. Physicians may contact a Poison Control Center for advice concerning cases of ingestion by humans.
Store between 68°F - 77°F (20°C - 25°C). Excursions between 59°F - 86°F (15°C - 30°C) are permitted. Protect product from light.
ADVERSE REACTIONS: In clinical field trials with HEARTGARD Plus, vomiting or diarrhea within 24 hours of dosing was rarely observed (1.1% of administered doses). The following adverse reactions have been reported following the use of HEARTGARD: Depression/lethargy, vomiting, anorexia, diarrhea, mydriasis, ataxia, staggering, convulsions and hypersalivation.
SAFETY: HEARTGARD Plus has been shown to be bioequivalent to HEARTGARD, with respect to the bioavailability of ivermectin. The dose regimens of HEARTGARD Plus and HEARTGARD are the same with regard to ivermectin (6 mcg/kg). Studies with ivermectin indicate that certain dogs of the Collie breed are more sensitive to the effects of ivermectin administered at elevated dose levels (more than 16 times the target use level) than dogs of other breeds. At elevated doses, sensitive dogs showed adverse reactions which included mydriasis, depression, ataxia, tremors, drooling, paresis, recumbency, excitability, stupor, coma and death. HEARTGARD demonstrated no signs of toxicity at 10 times the recommended dose (60 mcg/kg) in sensitive Collies. Results of these trials and bioequivalency studies, support the safety of HEARTGARD products in dogs, including Collies, when used as recommended.
HEARTGARD Plus has shown a wide margin of safety at the recommended dose level in dogs, including pregnant or breeding bitches, stud dogs and puppies aged 6 or more weeks. In clinical trials, many commonly used flea collars, dips, shampoos, anthelmintics, antibiotics, vaccines and steroid preparations have been administered with HEARTGARD Plus in a heartworm disease prevention program.
In one trial, where some pups had parvovirus, there was a marginal reduction in efficacy against intestinal nematodes, possibly due to a change in intestinal transit time.
HOW SUPPLIED: HEARTGARD Plus is available in three dosage strengths (See DOSAGE section) for dogs of different weights. Each strength comes in convenient cartons of 6 and 12 chewables.
For customer service, please contact Merial at 1-888-637-4251.

The tireless efforts of the Cajun Navy alongside countless veterinary volunteers from LSU and beyond keep hope afloat for the people and animals affected by historic Louisiana flooding. *By Hannah Wagle*

As most of the veterinary world drifts into fall and a season where we keep in mind all we're thankful for, in southern Louisiana, some are just thankful to have shelter after their homes were destroyed by massive flooding. "This is round two for me," Wendy Wolfson, DVM, assistant professor at Louisiana State University (LSU) School of Veterinary Medicine (SVM) and head of the shelter medicine program there, told dvm360. Wolfson was displaced after losing her home to Katrina 11 years ago. "I know exactly what everyone is going through." The LSU SVM, with the help of the Louisiana State Animal Response Team (LSART), rescued and cared

for thousands of animals affected by the historic flooding that occurred throughout south Louisiana in mid-to late August. Volunteers organized rescues and worked with numerous animal shelters in surrounding areas. "We rescued five horses from a house that was about three to four feet under water," says William Ryan, a senior veterinary student at LSU. "The water was up to their porch, and there were five horses, a donkey and a miniature horse all standing up there. They got shots and water and food. Then we walked them through the driveway and to a trailer to the vet school." Wolfson says relief efforts took pets into account during this crisis—something that didn't happen as much with

Katrina. "We've learned a lot through Katrina," she says. "There are two or three big shelters run by the Red Cross where people come with their pets. It's the first time people have been sheltered with their pets. We're doing much better this time." Still, things were nothing less than chaotic as the floods displaced more than 20,000 people and their animals—companion and farm. According to LSU, more than 1,400



>>> LSU veterinary student William Ryan (right) leads a horse out of floodwaters with the help of associate professor of equine surgery Laura Riggs, DVM, PhD, DACVS.



©HEARTGARD and the Dog & Hand logo are registered trademarks of Merial.
©2015 Merial, Inc., Duluth, GA. All rights reserved. HGD15PRETESTTRADEADS (01/16).



Think Veraflox® (pradofloxacin) Oral
Suspension for Cats is just another antibiotic?

Put it to the test

This next-gen antimicrobial treatment[†] features a surprising
combination of efficacy, safety and ease-of-use.

BACTERICIDAL

against Gram-negative,
Gram-positive and
anaerobic bacteria*¹

SAFE

in kittens as young
as 12 weeks of age²

CONVENIENT

once-daily, vanilla-flavored
oral suspension available
in 15- and 30-mL bottles



**Don't believe it? Ask your lab
to include Veraflox® on your
next susceptibility tests.**



VerafloxOS.com

CAUTION: Federal law restricts this drug to use by or on the order of a licensed veterinarian. Federal law prohibits the extra label use of this drug in food-producing animals. WARNING: For use in cats only. PRECAUTION: The safety of pradofloxacin in cats younger than 12 weeks of age has not been evaluated.

*The clinical significance of *in vitro* data has not been demonstrated.

[†]Veraflox® is indicated for the treatment of skin infections (wounds and abscesses) in cats caused by susceptible strains of *Pasteurella multocida*, *Streptococcus canis*, *Staphylococcus aureus*, *Staphylococcus felis*, and *Staphylococcus pseudintermedius*.

¹Silley P, Stephan B, Greife H, Pridmore A. (2012). Bactericidal properties of pradofloxacin against veterinary pathogens. *Vet Microbiol.* 157(2012): 106-111.

²Freedom of Information Summary: NADA 141-344.

©2016 Bayer, Shawnee Mission, Kansas 66201. Bayer, the Bayer Cross and Veraflox are registered trademarks of Bayer. V161467

See brief summary on page 08



Oral Suspension for Cats
Veraflox (pradofloxacin) Oral Suspension for Cats
25 mg/mL

For the treatment of skin infections (wounds and abscesses) in cats.
Do not use in dogs.

BRIEF SUMMARY:
Before using Veraflox Oral Suspension for Cats, please consult the product insert, a summary of which follows:

CAUTION:
Federal law restricts this drug to use by or on the order of a licensed veterinarian. Federal law prohibits the extra-label use of this drug in food-producing animals.

PRODUCT DESCRIPTION:
Pradofloxacin is a fluoroquinolone antibiotic and belongs to the class of quinolone carboxylic acid derivatives. Each mL of Veraflox Oral Suspension provides 25 mg of pradofloxacin.

INDICATIONS:
Veraflox is indicated for the treatment of skin infections (wound and abscesses) in cats caused by susceptible strains of *Pasteurella multocida*, *Streptococcus canis*, *Staphylococcus aureus*, *Staphylococcus felis*, and *Staphylococcus pseudintermedius*.

CONTRAINDICATIONS:
DO NOT USE IN DOGS. Pradofloxacin has been shown to cause bone marrow suppression in dogs. Dogs may be particularly sensitive to this effect, potentially resulting in severe thrombocytopenia and neutropenia. Quinolone-class drugs have been shown to cause arthropathy in immature animals of most species tested, the dog being particularly sensitive to this side effect. Pradofloxacin is contraindicated in cats with a known hypersensitivity to quinolones.

HUMAN WARNINGS:
Not for human use. Keep out of reach of children. Individuals with a history of quinolone hypersensitivity should avoid this product. Avoid contact with eyes and skin. In case of ocular contact, immediately flush eyes with copious amounts of water. In case of dermal contact, wash skin with soap and water for at least 20 seconds. Consult a physician if irritation persists following ocular or dermal exposure or in case of accidental ingestion. In humans, there is a risk of photosensitization within a few hours after exposure to quinolones. If excessive accidental exposure occurs, avoid direct sunlight. Do not eat, drink or smoke while handling this product. For customer service or to obtain product information, including a Material Safety Data Sheet, call 1-800-633-3796. For medical emergencies or to report adverse reactions, call 1-800-422-9874.

ANIMAL WARNINGS:
For use in cats only. The administration of pradofloxacin for longer than 7 days induced reversible leukocyte, neutrophil, and lymphocyte decreases in healthy, 12-week-old kittens.

PRECAUTIONS:
The use of fluoroquinolones in cats has been associated with the development of retinopathy and/or blindness. Such products should be used with caution in cats. Quinolones have been shown to produce erosions of cartilage of weight-bearing joints and other signs of arthropathy in immature animals of various species. The safety of pradofloxacin in cats younger than 12 weeks of age has not been evaluated. The safety of pradofloxacin in immune-compromised cats (i.e., cats infected with feline leukemia virus and/or feline immunodeficiency virus) has not been evaluated. Quinolones should be used with caution in animals with known or suspected central nervous system (CNS) disorders. In such animals, quinolones have, in rare instances, been associated with CNS stimulation that may lead to convulsive seizures. The safety of pradofloxacin in cats that are used for breeding or that are pregnant and/or lactating has not been evaluated.

ADVERSE REACTIONS:
In a multi-site field study, the most common adverse reactions seen in cats treated with Veraflox were diarrhea/loose stools, leukocytosis with neutrophilia, elevated CPK levels, and sneezing.

ANIMAL SAFETY:
In a target animal safety study in 32, 12-week-old kittens dosed at 0, 1, 3, and 5 times the recommended dose for 21 consecutive days. One 3X cat and three 5X cats had absolute neutrophil counts below the reference range. The most frequent abnormal clinical finding was soft feces. While this was seen in both treatment and control groups, it was observed more frequently in the 3X and 5X kittens.

U.S. Patent No. 6,323,213
May, 2012
84364593/84364607, R.O
NADA141-344, Approved by FDA
Made in Germany
Bayer, the Bayer Cross and Veraflox
are registered trademarks of Bayer.
17928
BAY022614

Bayer

Bayer HealthCare LLC
Animal Health Division
Shawnee Mission, Kansas 66201, U.S.A.

animals had been brought to shelters by mid-August, mainly dogs, cats, cattle and horses.

Mary Van de Putte is a veterinary technician and assistant operations director at Cat Haven, a nonprofit cat rescue clinic in Baton Rouge. “One of my coworkers here at Cat Haven had to be evacuated with her husband and three cats by a boat driving through their neighborhood,” Van de Putte told dvm360. “She painted a lovely image of floating the cat carriers on top of the water with one hand, and a Tidy Cats container of litter and food in the other hand.”

Other workers at Cat Haven did their best to reach the clinic and care for the animals on site. “All of our cat colony rooms have shelving on the walls that allow the cats to get up high and away from each other, so we placed tables in each room for elevated food and litter boxes,” Van de Putte says. “We also lifted up our kitten condo cages to give them an extra three feet away from the floor. Those of us who were able to get to and from came by several times a day to make sure everyone had plenty of food and water and medicate any sick kitties.”

Some shelters in parishes surrounding the flooded areas sent their animals to be housed with rescue organizations to make room for rescued pets, Wolfson says. These pets were given donated medicine, food, shots and comfort by volunteers and LSU faculty, staff and students.

The LSU veterinary teaching hospital was able to remain staffed and see regular appointments as well as animals affected by the flooding. Classes began as scheduled August 17. According to Wolfson, this was a tremendous opportunity for students. “They helped the community, plus learned veterinary medicine, plus got experience with a large number of animals and the people with them,” she says.



>>> A rescued dog receives care from LSU veterinary volunteers. Animals were given food, water, shelter, medicine and comfort, all of which were donated.

“One of my coworkers had to be evacuated with her husband and three cats by a boat driving through their neighborhood. She painted a lovely image of floating the cat carriers on top of the water with one hand, and a Tidy Cats container of litter and food in the other hand.”

*—Mary Van de Putte, technician,
Baton Rouge, Louisiana*

Ryan agrees. “It’s been a good mixture of students and faculty,” he says. “And a good experience for vet students to see each other outside of the classroom and work alongside teachers you wouldn’t normally get to work with beyond a semester’s class.”

But those students had to face a number of challenges. When Ryan first arrived at one particular rescue site, it didn’t seem all that bad. “I thought we were walking through a lake to get to the house,” he says. “It was actually their driveway. We were already at their house and I had no idea. It’s tough because you don’t have anything to say to those people; you don’t have anything to offer except for the best you can do. It’s a surreal experience to see how water can literally ruin your life—everything you have.”

There was a fatigue in Wolfson’s voice when she told dvm360, “You can’t help but be affected when you walk in and see all of those animals and all of those people in need. You can’t.”

Van de Putte echoes Wolfson’s observations. “I’ve done everything from arranging donations to the shelter in Ascension Parish, helping at my family’s church, organizing and handing out donations, and helping remove drywall from a damaged house to prepare it to be rebuilt,” she says. “It’s insanely hectic.”

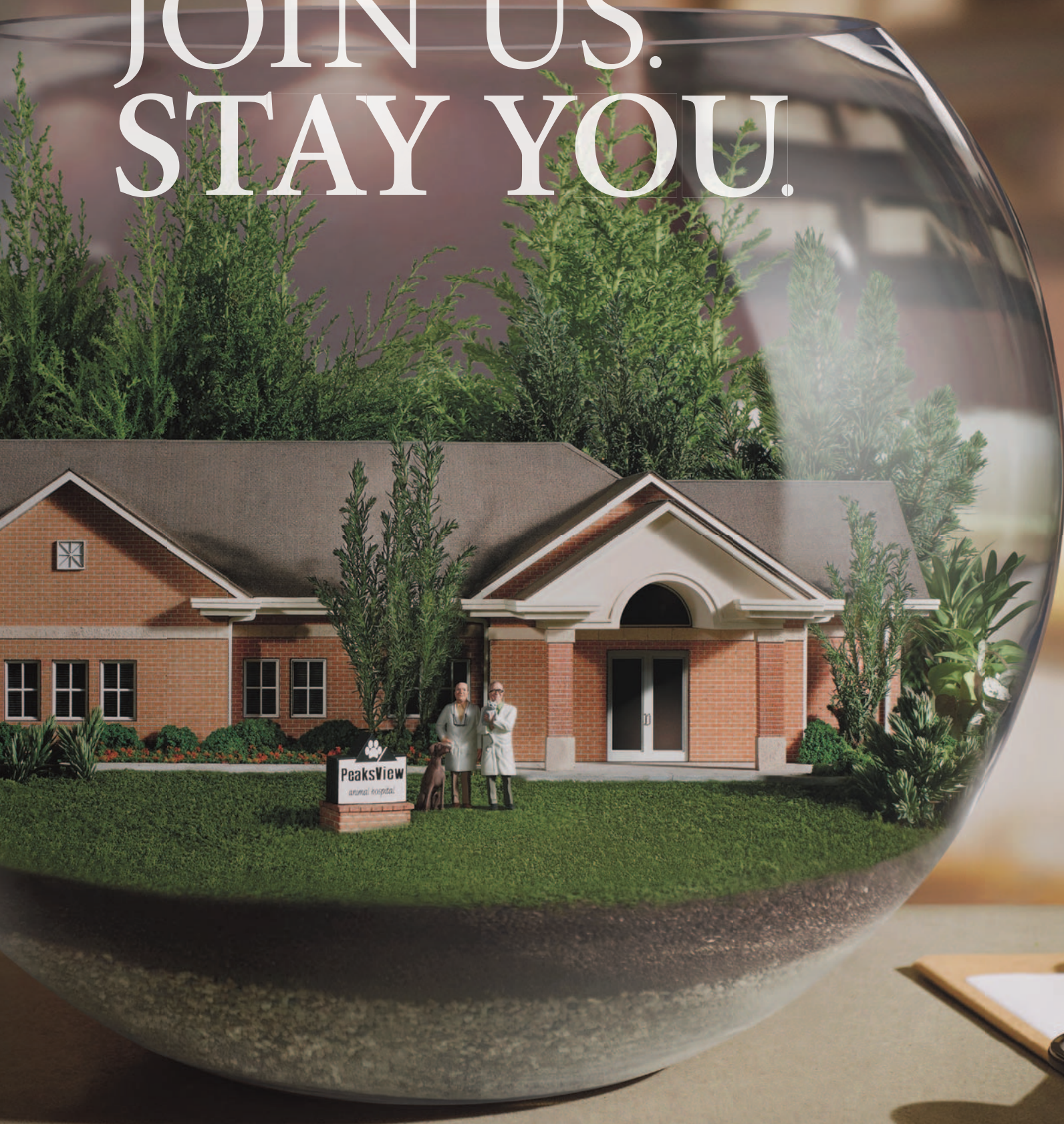
And though the situation seemed bleak at the time, both remained optimistic. The belief in the generosity and kindness of human beings is what got Wolfson through Katrina, and she knew it would get the people around her through the summer’s flooding.

“Really good things come from really horrible things,” Wolfson says. “I don’t remember individuals who helped me, but I remember how wonderful everyone was—a blur of wonderful people. It’s so sad that the national news can only talk about the horrible things. And here, every day, I hear wonderful, amazing, uplifting things about people. Regular people, doing amazing things. That’s what you need.”

Residents and workers in Louisiana even gave the tireless volunteers a loving name. “It’s volunteers going out in boats that will save you,” Wolfson says. “They’re called the Cajun Navy. And the Cajun Navy always comes through.”

“It was just a bunch of residents from within the affected parishes and beyond,” says Van de Putte. “All jumped in their boats and drove the streets, rescuing door-to-door. The best part is that because of them, everyone was able to be rescued along with their pets.” **dvm360**

JOIN US. STAY YOU.



PEAKS VIEW ANIMAL HOSPITAL

FOUNDED 2000 | LEGACY PRESERVED 2012

.....
“When we sold our practice to NVA, the culture of our clinic remained the same. They haven’t changed the way we practice medicine. That was really important to us. NVA has proven to be exactly what they said they were.”

– Al Henry, DVM and Les Mulligan, DVM

Join us and we’ll preserve your legacy.

NVA 
NVAonline.com/stayyou
888-767-7755

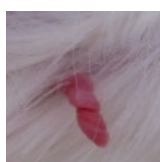
Cool Renewal™

A convenient, cost effective alternative to traditional liquid nitrogen methods and equipment, as well as other expensive portable cryosurgery systems.

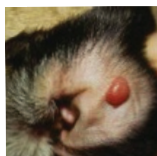


Benefits:

Minimal Discomfort
Self Anesthetizing
2 Minute Procedure
No Suturing
No Evaporation
No Expiration
Portable
Low Cost Treatment



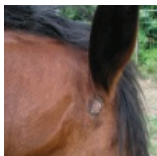
Skin Tag



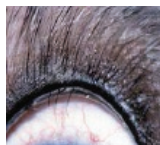
Histiocytoma



Papillomas



Sarcoid



Distichia

Remove all
of these in
seconds,
painlessly!



Jorgensen Laboratories, Inc.

Loveland, CO 80538

(800) 525-5614

www.JorVet.com Info@JorVet.com

Dr. Joseph Bojrab remembered as expert educator in veterinary community

Bojrab leaves behind a legacy of practical knowledge in the surgery suite. *By Mindy Valcarcel, Medicine Channel Director*

Well-known veterinary educator M. Joseph Bojrab, DVM, MS, PhD, passed away on Tuesday, Sept. 13, at the age of 76. He is being mourned throughout the veterinary field. Whether through well-known surgery textbooks or lectures and hands-on laboratory courses featuring surgical pointers and techniques, Bojrab's lessons endure in countless veterinarians.

A life of veterinary service

Bojrab received his veterinary degree in 1964 from Purdue University. He completed an internship and residency at Cornell University in 1966 and then accepted a position as instructor in the Department of Veterinary Surgery at Oklahoma State University (OSU), where he also received a master's degree in physiology in 1968. He received a National Science Foundation Science Faculty Fellowship in 1969 and traveled to the University of Bristol, England, where he studied veterinary anatomy and received his PhD in 1971.

He then hopped back over to this side of the pond and was appointed associate professor and head of small animal surgery at OSU in 1973, eventually joining the faculty at the University of Missouri College of Veterinary Medicine as the head of small animal surgery. In July of 1987, he moved to Las Vegas and began a surgical consulting practice.

Bojrab was integral to continuing education as well in many forms. He recruited speakers for and managed the clinical track of the CVC from its very beginnings in 1988. He retired from this position in December 2014, but his legacy of venerated speaker recruitment and topnotch continuing education continues.

Fond remembrances

"Throughout the 27 years Dr. Bojrab worked on various aspects of CVC programming, it was obvious to everyone that he had a great passion for the profession and for educating veterinarians and technicians," says Peggy Shandy, director of the CVC group, who worked with Bojrab from the very beginning. "He particularly liked hands-on teaching. During the 22 years and the 45 CVCs we worked together, many calls—and



>>> Dr. Joseph Bojrab, longtime veterinary surgery educator, has died at age 76.

then, later, emails—started with, 'Peggy, it's Joe, I've got a great idea ...' and he would launch into a detailed description of a clinical technique, the reasons why it would make a good course and suggestions on who could teach it. Obviously if it was surgery, he was excited to take the lead. He recognized the value of practical presentations in a format that would engage veterinarians and provide them with skills they could immediately put into use.

"I was always amazed by the number of people who would approach him in the convention hallways or exhibit halls to say hello, tell him how much they enjoyed his lecture or lab, mention one of his books or ask his opinion," Shandy continues. "He always took time to talk with them, provide feedback and answer questions. He was generous in sharing his expertise."

Theresa Entriiken, DVM, medical director of

UBM Americas, Veterinary, which owns the CVC and dvm360, echoes Shandy's thoughts. "Dr. Bojrab tremendously enjoyed teaching the hands-on clinical courses at CVC and was instrumental in their development," she says. "His exuberance for surgery along with his down-to-earth techniques and



Dr. Theresa Entriiken



Dr. Jennifer Wardlaw

advice gave practicing veterinarians confidence in their abilities. I learned from his surgery textbooks in veterinary school, as did countless others, and it was a privilege to work with and learn from him as a colleague through CVC. Dr. Bojrab made remarkable contributions to the profession."

Jennifer Wardlaw, DVM, DACVS, founder of Gateway Veterinary Surgery in St. Louis, often collaborated with Bojrab as an instructor. "He was one of those iconic surgery names that instills a little fear in a surgery resident when they hear it," Wardlaw says. "When he first asked me to lecture for him at a conference, I was thrilled, and a little nervous. After all, it was *the* Dr. Bojrab. Then, over many years, we became friends. We helped each other and brainstormed and told stories about surgeries, talking shop the way vets do. I cherished our times together. He would often shock new graduates with his matter-of-fact way of teaching. But life as a surgeon had taught him to cut to the point and get it done. I loved this quality about him, even when I disagreed with him.

"Dr. Joe Bojrab was an amazing person and a talented surgeon who made enormous contributions to furthering

"When he first asked me to lecture for him, I was thrilled, and a little nervous. After all, it was the Dr. Bojrab. Then, over many years, we became friends."

—Dr. Jennifer Wardlaw

the level of veterinary surgery education," Wardlaw continues. "While some of his knowledge will live on in the numerous papers and books he published, we would all be blessed to have made such a lasting impact on the profession and hearts of so many."

Bojrab, born Aug. 4, 1940, was laid to rest Sept. 19 in his hometown of many years, Las Vegas. Another star shines on in the city of lights. **dvm360**



>>> When Peggy Shandy, director of the CVC group, made a presentation to Bojrab in 2014 upon his retirement from the CVC, she calculated that he had delivered more than 800 seminars and presentations on veterinary surgery around the world.

WHEN THEY DEPEND ON YOU, YOU CAN DEPEND ON US.

You are committed to providing the best care possible. Here at ANTECH Diagnostics®, we support you with unique and comprehensive diagnostic services. Empowering you to deliver the most effective treatment.

For the highest level of service, accuracy and state-of-the-art technology, depend on ANTECH Diagnostics.



JOB 224 8/2016 DVM360

ANTECH
D I A G N O S T I C S

West (US/Canada): 800.745.4725

East (US): 800.872.1001

East (Canada): 800.341.3440

Test Express: 888.397.8378

ANTECHdiagnostics.com

SMART DIAGNOSTICS = SMART MEDICINE

Healthy

Holistic



NATURAL

—Veterinary Diet®—

The Efficacy You Demand in Well-Balanced, Natural Therapeutic Diets – Enhanced with Vitamins and Minerals –

Formulated by veterinarians and animal nutritionists, BLUE Natural Veterinary Diet offers your patients formulas designed to help manage specific therapeutic dietary needs with the natural ingredients pet owners are seeking.

- ✓ High-quality proteins from real chicken or salmon
- ✓ Wholesome fruits and vegetables
- ✓ NO chicken (or poultry) by-product meals
- ✓ NO corn, wheat or soy
- ✓ NO artificial preservatives, colors or flavors
- ✓ Exclusive antioxidant-rich LifeSource Bits®

Formulated to Help Manage Kidney Disease

INTRODUCING



KS

Kidney Support



KM

*Kidney +
Mobility Support*

- Controlled protein levels
- Controlled levels of phosphorus and sodium
- High levels of DHA and EPA
- Antioxidants to help reduce oxidative stress
- L-carnitine to support healthy muscle maintenance and body condition

Plus KM includes glucosamine and chondroitin sulfate to support joint health in cats

www.TrueBLUEVets.com

Formulated to Support Weight Management and Urinary Health

Clinically proven to reduce body fat by 39.6% in dogs and 36.8% in cats in two months.*

Clinically proven in dogs and cats to produce a*:

- Urine pH of 6.0–6.4
- Struvite RSS of <1
- Calcium oxalate RSS of <5



WU
Weight Management
+ Urinary Care

Formulated to Help Manage Gastrointestinal Diseases



30%
quicker resolution
of diarrhea in cats;
23% in dogs*



GI
Gastrointestinal
Support

Clinically shown to improve stool quality in dogs*

Clinically proven to improve stool quality in cats*

Formulated to Help Manage Adverse Food Reactions

The **first ingredient** is salmon hydrolysate, a high-quality novel protein with a **mean molecular weight of 2,000 daltons**.



HF
Hydrolyzed for
Food Intolerance

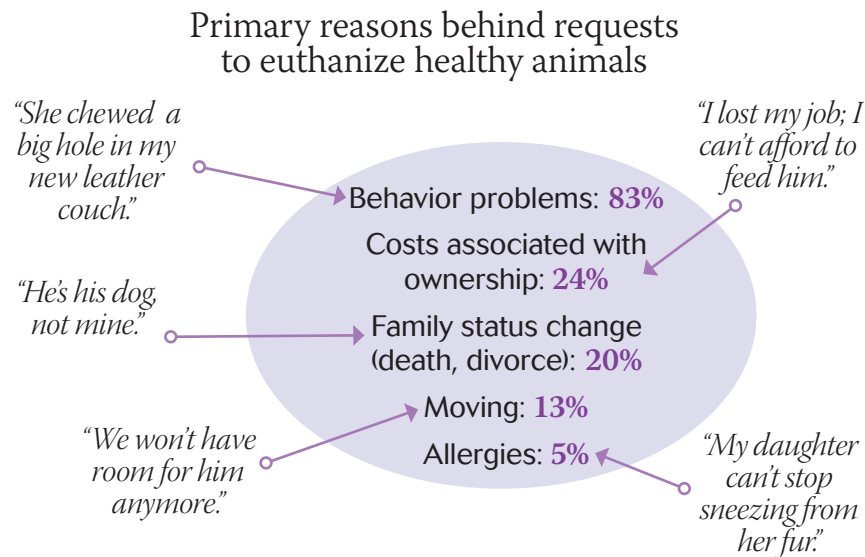
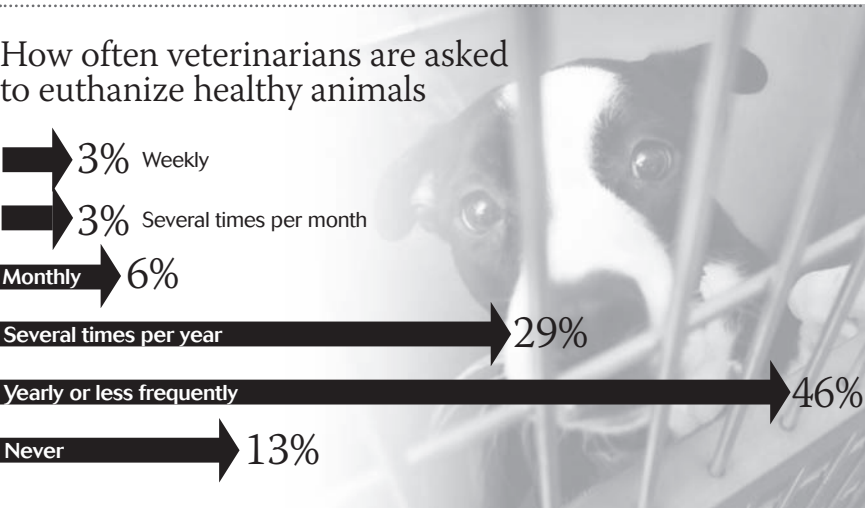
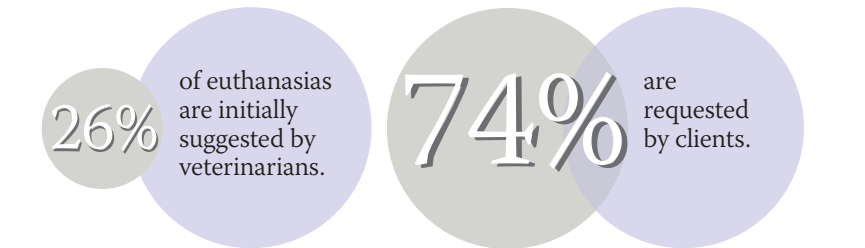
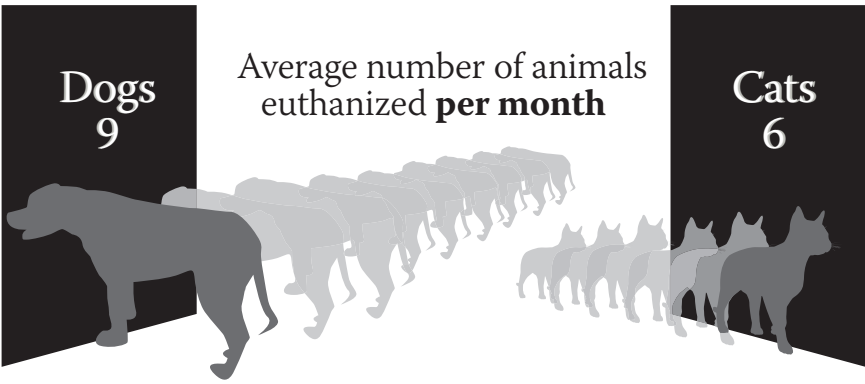
The Natural Alternative in Nutritional Therapy™

*Blue Buffalo Co., Ltd., data on file, 2015

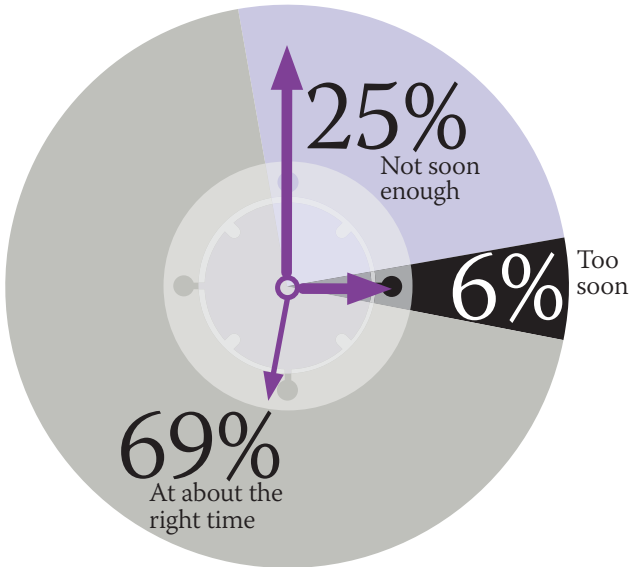
Call **888-323-BLUE** (2583) to speak with a Veterinary Clinic Specialist.

State of the veterinary profession: Euthanasia in practice

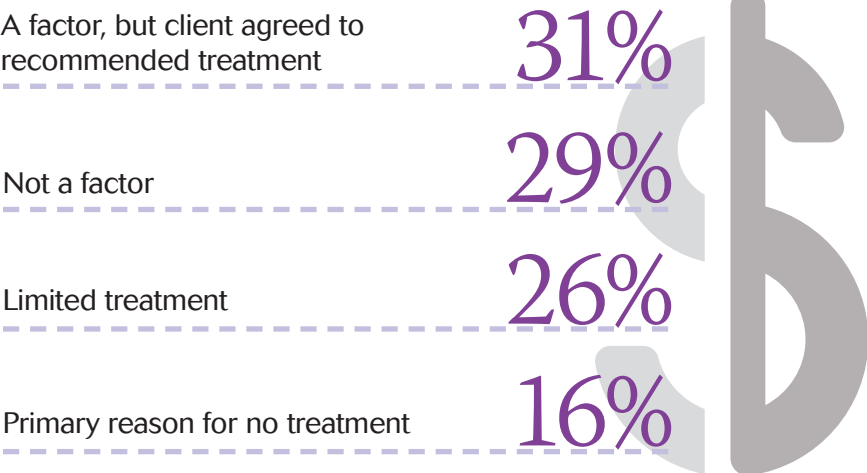
dvm360 asked veterinary teams about euthanasia in their hospitals. Here's what they reported.*



Most clients opt to euthanize animals ...



The effect of cost on clients' decision to treat (or continue to treat) sick or injured animals



ABC Animal Hospital	INVOICE
	October 1st, 2016
For veterinary services rendered	
	Amount due:
Estimated total dollar amount at which most clients would refuse or stop treatment for their pets	\$1,433

*Source: dvm360 State of the Profession Survey, 2015. About 350 veterinarians and team members replied to an email survey sent to subscribers of dvm360 magazine.

MINIMALISM CAN BE MAGNIFICENT.

The ULTRA line of 0.5 mL vaccines* offers:

- Pet owners effective protection with minimal injection volume for their pet
- Veterinarians the opportunity to provide a better vaccine experience for their patients

And that's a beautiful thing.

Contact your Boehringer Ingelheim Vetmedica, Inc. sales representative or visit ULTRAvaccines.com to learn more.

ULTRA[™]
V A C C I N E S

Vaccines reimagined.

*The ULTRA vaccine line includes ULTRA[™] Duramune[®] and ULTRA[™] Fel-O-Vax[®].

ULTRA DURAMUNE and ULTRA FEL-O-VAX are registered trademarks of Boehringer Ingelheim Vetmedica, Inc.
© 2015 Boehringer Ingelheim Vetmedica, Inc. VAC0515002 15658

Survey: Pet owners value vet care when they understand their own health benefits

HABRI-AAHA research shows a link between owner knowledge of human-animal bond effects and veterinary care for pets.

74%
of millennials would be more likely to visit their veterinarian if he or she discussed the health benefits of the human-animal bond with them.

A new survey of 2,000 pet owners from the Human Animal Bond Research Initiative (HABRI) Foundation and the American Animal Hospital Association (AAHA) suggests that pet owners who know the health benefits of owning pets are more motivated to provide veterinary care for them, according to a release from HABRI.

“When people find out that pets improve heart health, decrease stress, help alleviate depression and address specific conditions that include autism, PTSD and Alzheimer’s, they become more focused on caring for their pet’s health,” says HABRI executive director Steven Feldman.

According to the release, 89 percent of survey respondents said they were more likely to take better care of their

pet after learning about the health benefits of the human-animal bond. More than 90 percent said they were more likely to maintain a pet’s health, including keeping up with vaccines and preventive medicine. And 89 percent said they were more likely to maintain a pet’s health, including regular check-ups with a veterinarian.

Furthermore, 88 percent of respondents said they were more likely to provide “higher quality nutrition,” while 51 percent said they were more likely to purchase pet health insurance.

Pets aren’t the only ones who stand to benefit from human-animal bond information. According to the release, 62 percent of survey respondents said the newfound information made them less likely to skip taking a pet to the veterinarian, and 61 percent would be

more likely to visit their veterinarian if the veterinarian discussed the health benefits of the human-animal bond with them. That number jumped to 74 percent for millennials.

Human-animal bond education can boost a veterinarian’s approval ratings as well. Sixty-six percent of survey respondents said they would have a more favorable view of their veterinarian if they discussed the health benefits of the human-animal bond with them—a number that reached 77 percent for millennials.

“The science of the human-animal bond offers veterinarians a real opportunity to improve their relationships with clients, and to provide the best care for their patients,” says AAHA CEO Michael Cavanaugh, DVM, DABVP, in the release. [dvm360](#)

Colorado State will host veterinary wellness summit

AAVMC to focus on profession’s well-being.

The Association of American Veterinary Medical Colleges (AAVMC) has scheduled its fourth annual Veterinary Health and Wellness Summit for early November. The conference to promote personal well-being among veterinary students and professionals will be hosted by Colorado State University (CSU) and is expected to draw around 250 attendees, according to a CSU release.

“As a community, we realize that wellness and mental-health issues are affecting people throughout the profession, and we are talking about next steps to address this problem,” says CSU Dean Mark Stetter, DVM, DACZM.

Organizers hope the meeting will

raise awareness about factors that may undermine veterinary productivity, career longevity and enjoyment in practice. They also hope to identify best practices and concrete steps individuals and the industry may take to improve mental health and a sense of well-being among veterinary students and professionals, the release states.

Conference leaders are inviting students, administrators, practicing veterinarians, social workers, counselors and industry partners to develop a common understanding about veterinary health and wellness, Stetter says.

To find more information or register for the summit, visit veterinarywellness.colostate.edu. [dvm360](#)



**Medi-Dose®
EPS®**

Steri-Dropper®
Package what you need
...when you need it!

- Ideal for Compounding and Dispensing Eye Medication
- Convenient Sterile Packs of 2 Bottles, Tips and Caps
- Four Sizes: 3, 7, 10 and 15 mL

*Unit Dose,
Bar Coding,
Pharmacy &
Nursing Supply
Experts!*

MediDose.com • 800.523.8966

New business-focused certification available for cattle veterinarians

University of Illinois, Kansas State collaborate on a postgraduate program for beef-focused bovine veterinarians modeled on an already successful program for swine practitioners.

An education program that helps swine veterinarians' careers will be available to beef-focused bovine veterinarians in 2017, according to representatives at the University of Illinois and Kansas State University.

The two schools are collaborating on new courses for an Executive Veterinary Program (EVP) in Beef Health Management to be available to DVMs interested in postgraduate work beginning April 2017. The program is modeled on an EVP in Swine Health Management launched in 1991, which has been offered six times with 222 graduates from 16 states and three countries.

"Today's food animal veterinarians need not only a robust understanding of medicine, but also leadership, systems management, communication and data analysis," says Jim Lowe, DVM, the associate professor from the College of Veterinary Medicine at Illinois who's coordinating the program. "These are things you don't learn in veterinary school."

Lowe planned the program with Dan Thomson, DVM, the Jones Professor of Production Medicine and Epidemiology at Kansas State University. Subjects will include "Improving outcomes through clinical reasoning," "Human impacts on disease occurrence and detection" and "Understanding our customers and the food supply chain of the 21st century." The program consists of 10 two-day modules spread over 18 months.

Thomson was a speaker for the most recent EVP Swine program. "I was impressed by the way the EVP Swine participants spoke about the impact the program was having on their careers," Thomson says. "I told the program leaders at Illinois that beef veterinarians need the skills and networking opportunities EVP created just as much as swine vets do."

Enrollment for EVP Beef is open to 40 participants. They'll meet at Kansas State University's newest campus in Olathe, Kansas. [dvm360](#)

HELP SUPPORT BEST FRIENDS ANIMAL SOCIETY®



Best Friends®




For over 30 years, Best Friends has been running the nation's largest no-kill sanctuary for companion animals and building effective programs that reduce the number of animals entering shelters.

bestfriends.org

HELP YOUR CAT'S HEALTH & HELP BEST FRIENDS BY USING ENISYL-F® CHEWS!

Vetoquinol USA will donate \$1.00* to Best Friends Animal Society for every bag of Enisyl-F Chews purchased through veterinarians nationwide from 9/1/16–12/31/16

SUPPORT FELINE HEALTH WITH ENISYL-F CHEWS

-  Enisyl-F – the most trusted name in L-Lysine therapy
-  Convenient size
-  Cats love the taste



DID YOU KNOW?

Current recommended L-Lysine administration is 500mg twice per day



*Up to \$15,000

The Pioneers of Veterinary L-Lysine

1.800.267.5707
vetoquinolusa.com



Texas Tech forms steering committee for proposed new veterinary school

Leaders say new program will meet agricultural needs in new ways.



\$15 million for new Texas Tech school

The city of Amarillo has given Texas Tech \$15 million to create a new vet school there. See dvm360.com/amarillo.

The Texas Tech University System, which is attempting to create an “innovative and transformative model for veterinary medicine from the ground up,” has appointed a steering committee for its proposed college of veterinary medicine, according to a Texas Tech media release. The committee will be housed at the Texas Tech University Health Sciences Center campus in Amarillo.

The steering committee, which met in Lubbock for the first time in early September, will work with senior leadership at Texas Tech University to provide critical insight, shape the veterinary school’s development and help address the shortage of veterinarians in rural areas and small communities, according to the release.

The Texas Higher Education Coordinating Board released a report in July describing the state’s shortage of large animal and rural veterinarians and the implications this shortage will have on the food supply. While the report stated that Texas does not need a new veterinary school at this time, Texas Tech says its new school will address the issues raised in the report. Texas A&M University is contesting the creation of a new veterinary school, citing its own plans to expand veterinary education programming in western Texas to address existing needs and shortages.

Texas Tech says its model is unlike any other in the United States in that it increases accessibility and affordability while not duplicating the state’s existing veterinary medicine efforts. According to the release, Texas Tech will offer a cost-effective option that

reduces student debt and focuses on rural community practice.

“The shortage of veterinarians in Texas, especially in rural areas, has been a problem for many years, and to ensure the safety of our food supply and the continued prosperity of our state, we must do what’s best for the industry, our fellow Texans and our future,” says former Texas House of Representatives Speaker Pete Laney, a member of the steering committee, in the Texas Tech release. “As an agriculture state, the nation and our world depend on Texas for food and fiber, and Texas Tech’s proposal for a new, innovative veterinary school is a much-needed solution to a severe challenge. It is a cost-efficient, trailblazing model, and it deserves the positive endorsement of our legislature.” **dvm360**

IN BRIEF | News

Sheila Allen to retire from role as dean at Georgia

After serving as the dean of the College of Veterinary Medicine at the University of Georgia since 2005, Sheila Allen, DVM, MS, DACVS, announced via email on August 5 that she will be stepping down from the position this coming December.



Dr. Sheila Allen

“We have accomplished much together over the last 11 years,” she wrote, citing the doubling of the DVM program applicant pool

and the design and construction of a new Veterinary Medical Center as examples.

Allen went on to write that an interim dean will be appointed until the next dean is chosen—a search scheduled to begin in September.

Allen isn’t hanging up her hat in veterinary education, however. According to an Association of American Veteri-

nary Medical Colleges (AAVMO) press release, Allen will serve as the organization’s senior accreditation advisor—a position in which she will collaborate with the American Veterinary Medical Association’s (AVMA) director of education and research to support the Council on Education in monitoring accreditation compliance in 49 veterinary medicine colleges around the world.

“In this role I will stay connected to the profession I love,” Allen wrote in her email announcement, “and continue to serve the passion I’ve devoted myself to at UGA, veterinary medical education.”

Midwestern, new vet school in Arizona, names Thomas Graves dean

Midwestern University has promoted Thomas K. Graves, DVM, PhD, DACVIM, to the position of dean at the university’s College of Veterinary Medicine (CVM) in Glendale, Arizona.



Dr. Thomas Graves

“[Dr. Thomas Graves] is a talented teacher, mentor and strong leader in the profession who brings a deep understanding of veterinary

medicine and its relationship to human health,” says Kathleen H. Goeppinger, PhD, Midwestern’s president and CEO, in a university release. “Dr. Graves is also a strong proponent of our One Health emphasis, an attribute that will be instrumental in guiding our newest college.”

Graves previously served as associate dean for clinical education at the college. Prior to joining Midwestern University, he was director of the Chicago Center for Veterinary Medicine and a professor of veterinary internal medicine for the University of Illinois, the release states.

Graves earned his DVM from Cornell University and his PhD from the University of Rochester School of Medicine and Dentistry. Midwestern University is a nonprofit private higher education institution focused on health sciences based in Downers Grove, Illinois. Its veterinary school launched in the fall of 2014. **dvm360**



GI DISEASE

Let's take
GI relief a step
forward



Clinically proven, highly digestible nutrition helps **RESOLVE DIARRHEA** in as little as 3 days



NEW! PREBIOTIC FIBER, shown to significantly increase beneficial gut bacteria, promoting a healthy GI microbiome balance



NEW! PSYLLIUM to promote healthy intestinal motility and regularity

NEW & IMPROVED **i/d[®]**
PRESCRIPTION DIET[®]

We took what works and made it work harder.

The clinically proven nutrition of i/d[®] now features additional ingredients for enhanced digestion, plus a rich aroma, new color and disk kibble shape dogs can't resist.

NOW AVAILABLE IN SMALL BITES!



Private investment comes to another multipractice group

Shawn McVey's Pathway Partners is the latest to see a private equity investor seek value in its hospital group. *By Brendan Howard, Business Channel Director*

Continuing a long trend of private equity investments in veterinary practice chains, Morgan Stanley Global Private Equity has invested in Pathway Partners.

Pathway Partners announced at the same time that its Austin, Texas-based veterinary management company and operator of veterinary practices has expanded to 35 clinics in nine states.



Shawn McVey

Pathway Partners CEO Shawn McVey says the company fills

a void for today's practice owners.

"Practices today are larger, more expensive and take management expertise to operate well," McVey says. "Further, many younger veterinarians are saddled with large debt, do not want to own practices and seek work-life balance. Pathway Partners is the solution to this problem."

Long-time veterinary business analyst John Volk says this transaction is just the latest in a long line of outside investors seeing value in veterinary hospitals.

"Nearly all of the veterinary practice rollups are funded by private equity

once they have enough critical mass to attract investment," Volk says. Citing NVA, Vet-Cor, PetVet Care Centers and Blue River and their private equity owners, Volk says there's a lot of private



John Volk

equity money chasing the veterinary field.

"Transaction activity is limited by lack of properties (practice groups), not lack of potential investors,"

he says. "Every time a practice group comes up for sale, there are many prospective bidders." **dvm360**

New tool compares veterinary school costs

Interactive resource from AAVMC compares such factors as in-state, out-of-state tuition and average size of scholarship awards.

The Association of American Veterinary Medical Colleges (AAVMC)'s new Cost Comparison Tool is an interactive, web-based

comparison tool to help veterinary college applicants and students make better decisions regarding the cost of their professional education, according to a release from the AAVMC.

"Educational debt is a complex problem, but we believe empowering people with information is a very promising strategy for improving this situation," says AAVMC CEO Andrew Maccabe, DVM, MPH, JD, in the release.

Users can compare the 30 U.S. veterinary schools through analysis of factors that contribute to the total cost of veterinary education. These include such variables as in-state and out-of-state tuition as well as cost of attendance and average size of scholarship awards.

The tool features three different comparison tabs—a map, in-state tuition comparison and out-of-state tuition—that users can toggle through and filter to narrow down their selections to the colleges that meet their specified criteria, such as whether or not the school allows students to establish in-state residency or to filter a total cost of tuition that doesn't exceed a specified number.

"Increased transparency and ac-

countability are important," Maccabe says in the AAVMC release. "We think providing clear, easy-to-access data regarding the various components of financing a professional education will help applicants make comparisons, analyze opportunities and ultimately make better financial decisions."

The AAVMC developed the tool out of ideas from the Fix-the-Debt Summit held in April at Michigan State University. The urgency came when conference members noted that debt-to-income ratio (DIR) for recent graduates in veterinary medicine is around 2:1, but experts believe the ratio should be about 1.4:1.

The data comes from several sources, including the last five years of the AAVMC's comparative data report, surveys of AAVMC member institutions and internal calculations, according to the release. The AAVMC also collaborated with the American Veterinary Medical Association and the Veterinary Information Network to create the final tool.

Visit aavmc.org/Students-Applicants-and-Advisors/Funding-Education.aspx to try the tool. **dvm360**

Oral Syringes & Dispensers

- 10 Sizes - from 0.5 mL to 60 mL
- Clear or Ultraviolet Inhibitant Amber
- Metric Only or Teaspoon/Metric Graduations
- Compatible with EPS Press-In Bottle Adapters

Medi-Dose®

EPS®

Unit Dose, Bar Coding, Pharmacy & Nursing Supply Experts!

MediDose.com • 800.523.8966

First documented identical twin dogs delivered by veterinarian in South Africa

Kurt de Cramer, BVSc, MMed-Vet (Gyn.), of Rant en Dal Animal Hospital in Mogale City, South Africa, noticed distress and prolonged abdominal straining during a Cesarean section on a female Irish wolfhound when she was due to give birth. He also noticed an unusual bulging by her uterus, according to a report from the BBC.

Though there were five live puppies, each with their own placenta arranged single-file within the uterus, de Cramer noticed that there were two others attached to one placenta. “When I realized that the puppies were of the same gender and that they had very similar markings, I also immediately suspected that they might be identical twins having originated from the splitting of an embryo,” says de Cramer in the BBC report.

According to the report, after calling upon other reproductive specialists, de Cramer and the team he had assembled obtained blood samples from the twins once they reached 2 weeks of age in order to genetically confirm what de Cramer suspected. The results showed that the puppies were genetically identical.

“There have been rumors about twin dogs before,” says Carolynne Joone, lecturer on veterinary reproduction at James Cook University in Townsville, Australia. “We just happened to be lucky enough to confirm it genetically.”

Even though this is the first confirmed instance of genetically identical canine twins, it is impossible to tell just how rare the occurrence is. “It has taken so long for us to find a monozygotic pair, so they are probably rare,” Joone says. “But so many of them will have been born naturally and blissfully unaware.”

But for identical twin pups to be delivered naturally is dangerous. “It is

even less likely for placenta-sharing puppies to survive,” de Cramer says in the BBC report, “because of several complications relating to nutrient and oxygen supply from a single placenta

having to do the job that is normally done by two placentas.”

Though they were slightly smaller at birth, the twin puppies, Cullen and Romulus, are still doing well. [dvm360](#)



PHOTO COURTESY OF RANT EN DAL ANIMAL HOSPITAL

The best just got better.

SURGICAL

NEW! CO₂ Surgical Laser 40W

The Gold Standard in Laser Surgery

- **Enhanced CO₂ Canister** – RF excited source and metal canister provides an estimated 2-3 times longer life than glass tubes.
- **SmartPulse™ Technology** – 25 watts of peak power in Super Pulse mode ensures optimum incision efficiency.
- **Improved User Interface** – Large, high-resolution touch-screen display with on board surgical reference guide.



THERAPY

MLS® Therapy Laser EVO



Unmatched Combination of Power, Performance, and Price

- **Power** – 75 watts of peak power while minimizing risk of collateral tissue damage.
- **Performance** – Patented technology to treat pain and inflammation simultaneously.
- **Price** – The best technology and value to ensure a strong return on investment.



Differentiate your practice, improve patient care and increase revenue!

See for yourself.

Schedule a 15 minute webinar or on-site demonstration.
800.889.4184 | celasers.com/veterinary

**CUTTING
EDGE**
LASER TECHNOLOGIES

Raising the barn on equine veterinary care

With an outdoor arena and client observation areas, this new equine hospital is a dream for patients and clients. *By Ashley Griffin*



➤➤➤ Tryon Equine Hospital sits on 16 acres of land right off a major road, near the border of North and South Carolina. "The site is in a picturesque and peaceful location among rolling hills and farms in the North Carolina foothills," the team said.



➤➤➤ Nestled inside the exam/treatment area is a convenient client alcove so that horse owners can safely watch exams and evaluations. This space connects back to the reception area, which also has a viewing window.

This veterinary team wanted to make their patients feel right at home in their new clinic. But that's easier said than done when your patients weigh 1,500 pounds. (Yep, they were going to need a bigger barn.)

In the end, Tryon Equine Hospital in Columbus, North Carolina, along with Heather Lewis, AIA, NCARB, of Animal Arts, designed a 16,413-square-foot hospital built for, well, a horse. And their efforts landed them a Merit Award in the 2016 *Veterinary Economics* Hospital Design Competition.

Take home these tips from this equine team to help make your large-animal hospital a huge success.



TWELVE-WEEK^{*}
PROTECTION

YOU WANT BETTER COMPLIANCE.
THEY WANT BETTER FLEA & TICK PROTECTION.

GET IT ALL IN 1 EASY CHEW

- Longest length of protection in a chew—up to 12 weeks!^{1*}
- Less frequent dosing for fewer gaps in protection^{1,2}
- Revolutionary technology with proven safety and efficacy^{1,3}

Order vet-exclusive BRAVECTO® for your clinic.

Contact your MERCK Animal Health Rep or distributor partner.

BravectoVets.com

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

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

References: 1. Bravecto [prescribing information]. Summit, NJ: Merck Animal Health; 2014. 2. Rohdich N, Roepke RKA, Zschiesche E. A randomized, blinded, controlled, and multi-centered field study comparing the efficacy and safety of Bravecto™ (fluralaner) against Frontline™ (fipronil) in flea- and tick-infested dogs. *Parasit Vectors*. 2014;7:83. 3. Freedom of Information Summary, NADA 141-426. Approved May 15, 2014.

Please see Brief Summary on page 24.

Copyright © 2016 Intervet Inc., d/b/a Merck Animal Health, a subsidiary of Merck & Co., Inc. All rights reserved. US/BRV/1215/0078a

BRAVECTO®
(FLURALANER)





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

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

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

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

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

Warnings:
Not for human use. Keep this and all drugs out of the reach of children. Keep the product in the original packaging until use, in order to prevent children from getting direct access to the product. Do not eat, drink or smoke while handling the product. Wash hands thoroughly with soap and water immediately after use of the product.

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

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

Percentage of Dogs with Adverse Reactions in the Field Study

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

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

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

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

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

Made in Austria

Copyright © 2014 Intervet Inc, a subsidiary of Merck & Company Inc.
All rights reserved

141487 R2

Reference: Bravecto [prescribing information] Summit, NJ: Merck Animal Health; 2014
Available by veterinary prescription only.





>>> The high vaulted ceilings (1) in the clinic's reception area pay homage to the local architecture of North Carolina and give this small space an open, airy feel. Porcelain tile flooring is strategically grouted with a mocha color for longevity and stain resistance (2). Fresh flowers (3) and greenery (4) make the space come to life, while cushy chair options (5) invite clients to get comfortable while they wait.



>>> The new site includes a staff office that doubles as a client consultation room, with multiple workstations and plenty of storage in the form of cubbies, cabinets and drawers.

Treat all patients like winners

Tryon staff is made up of board-certified surgeons, certified acupuncturists, chiropractors, experienced ambulatory veterinarians and a board-certified internist. The team as a whole specializes in treating performance horses. However, they perform the same high-quality veterinary care on all of their patients.

One of the team's top reasons for building the new facility was also to allow better care and more space for clients as well. The new site includes a consultation room, a client observation point and a conference room for private meetings—these are all features that the old clinic was lacking.

"We realize that our patients are valued almost like children by their owners and clients like to understand what's happening with their horse, often wanting to be involved in every step of the diagnosis and treatment process," says one of the three owners, Anne Baskett, DVM, DACVS.

**Congratulations
Tyron Equine Hospital!**

ANIMAL ARTS
architecture animals people

800.332.4413
www.animalarts.biz



>>> Both induction and recovery rooms are designed for the ultimate safety of horses and staff. They are carefully sized, padded and outfitted with view ports, hooks, easy access doors and squeeze gates to keep technicians safe from horses that are lying down or getting to their feet.



>>> It was important for this full-service equine hospital to be able to isolate patients with potentially contagious diseases. That's where the isolation barn comes into play. It completely separates patients from each other and the main hospital. Individual prep and cleaning areas allow for proper protocols and for staff to care for patients without leaving this isolation zone.



>>> Tryon has a 16-stall medical barn for healthy outpatients as well as non-contagious medical and surgery cases. This barn can be independently accessed for easy accessibility. It's also separated from the busy traffic flow of the hospital.

Get in the zone

Spaces for examining and treating large patients need boundaries in the circulation and floor plan to keep all horses and people safe. For example, at Tryon Equine Hospital, there is a human zone that horses never cross and an equine zone dedicated to patient treatment and surgery. These zones never intersect.

"In an equine hospital, it's critical to provide this clear distinction because horses are huge," according to Tryon's Hospital Design Competition entry.

There is a similar separation between staff members and clients. Clients are welcome in the reception area, exam and evaluation areas, and the medical barn.

"Otherwise, circulation is restricted unless the client is specifically escorted by a staff member," according to the entry. "The plan clearly divides public and private spaces."

Choose the right site

Tryon Equine Hospital is located among rolling hills and farms—sounds dreamy, right? While it is picturesque, there's no such thing as a "perfect" site. (The team encountered septic tank and power system issues right off the bat.) This is why it's ideal to involve a veterinary architect in the site selection process to make sure any major problems are within your budget.

And, when choosing the site, don't forget to plan ahead. Tryon sits on 16 acres, and the owners think that will provide for today's needs as well as future growth.

Ready for a full photo tour of this hospital? Check it out at **dvm360.com/Tryon**. **dvm360**

Ashley Griffin is a freelance writer based in Kansas City and a former content specialist for dvm360.



>>> Want to make horse patients happy? Add an outdoor arena to your new hospital site map. Tryon's large performance arena is located in front of the hospital entrance and is the perfect place for patients to exercise their way back to good health. It also serves as a location for conducting initial evaluations for lameness cases and pre-purchase exams.



More hikes together.

Less aches.

Reduced inflammation.

For more info see brief summary on page 28.

When dogs have osteoarthritis, everyone suffers. But at Ceva, we think nobody should have to feel that pain. Which is why we created Meloxidyl® (meloxicam), a trusted NSAID to control the pain and inflammation associated with osteoarthritis. In addition to relieving pain with Meloxidyl®, dietary changes, supplements, as well as lifestyle changes may help manage osteoarthritis in the long term. Contact your Ceva Distributor or Sales Representative to learn more about Ceva's solutions for osteoarthritis.

DO NOT USE MELOXIDYL ORAL SUSPENSION IN CATS. Acute renal failure and death have been associated with the use of meloxicam in cats. Dogs with known hypersensitivity to meloxicam or other NSAIDs should not receive Meloxidyl Oral Suspension. Meloxidyl Oral Suspension is not recommended for use in dogs with bleeding disorders. If vomiting, diarrhea, decreased appetite or other signs of illness are seen, discontinue treatment immediately.

Meloxidyl is a registered trademark of Ceva Santé Animale S.A. ©2016 Ceva Animal Health, LLC, Lenexa, KS 66215



Benchmarks 2016 shows strong revenue growth, higher staff levels

Annual report spearheaded by Denise Tumblin examines the financial performance of 100 top-performing veterinary practices.

Meloxidyl® (meloxicam)

ANADA 200-550, approved by FDA.
*Please read entire package insert before use.

Meloxidyl®
(meloxicam) 1.5 mg/mL Oral Suspension

Non-steroidal anti-inflammatory drug for oral use in dogs only

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

Indications: Meloxidyl Oral Suspension is indicated for the control of pain and inflammation associated with osteoarthritis in dogs.

Contraindications: Dogs with known hypersensitivity to meloxicam should not receive Meloxidyl Oral Suspension. **Do not use Meloxidyl Oral Suspension in cats. Acute renal failure and death have been associated with the use of meloxicam in cats.**

Warning: Repeated use of meloxicam in cats has been associated with acute renal failure and death. Do not administer additional injectable or oral meloxicam to cats. See Contraindications, Warnings, and Precautions for detailed information.

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

As with any NSAID, all dogs should undergo a thorough history and physical examination before the initiation of NSAID therapy. Appropriate laboratory testing to establish hematological and serum biochemical baseline data is recommended prior to and periodically during administration. Owner should be advised to observe their dog for signs of potential drug toxicity and be given a client information sheet about Meloxidyl Oral Suspension.

Precautions: The safe use of Meloxidyl Oral Suspension in dogs younger than 6 months of age, dogs used for breeding, or in pregnant or lactating dogs has not been evaluated. Meloxicam Oral Suspension is not recommended for use in dogs with bleeding disorders, as safety has not been established in dogs with these disorders. As a class, cyclo-oxygenase inhibitory NSAIDs may be associated with gastrointestinal, renal and hepatic toxicity. Sensitivity to drug-associated adverse events varies with the individual patient. Dogs that have experienced adverse reactions from one NSAID may experience adverse reactions from another NSAID. Patients at greatest risk for renal toxicity are those that are dehydrated, on concomitant diuretic therapy, or those with existing renal, cardiovascular, and/or hepatic dysfunction. Concurrent administration of potentially nephrotoxic drugs should be carefully approached. NSAIDs may inhibit the prostaglandins that maintain normal homeostatic function. Such antiprostaglandin effects may result in clinically significant disease in patients with underlying or pre-existing disease that has not been previously diagnosed. Since NSAIDs possess the potential to induce gastrointestinal ulcerations and/or perforations, concomitant use with other anti-inflammatory drugs, such as NSAIDs or corticosteroids, should be avoided. If additional pain medication is needed after administration of the total daily dose of Meloxidyl Oral Suspension, a non-NSAID or non-corticosteroid class of analgesia should be considered. The use of another NSAID is not recommended. Consider appropriate washout times when switching from corticosteroid use or from one NSAID to another in dogs. The use of concomitantly protein-bound drugs with Meloxidyl Oral Suspension has not been studied in dogs. Commonly used protein-bound drugs include cardiac, anticonvulsant and behavioral medications. The influence of concomitant drugs that may inhibit metabolism of Meloxidyl Oral Suspension has not been evaluated. Drug compatibility should be monitored in patients requiring adjunctive therapy.

Adverse Reactions: Field safety was evaluated in 306 dogs. Based on the results of two studies, GI abnormalities (vomiting, soft stools, diarrhea, and inappetence) were the most common adverse reactions associated with the administration of meloxicam. The following table lists adverse reactions and the numbers of dogs that experienced them during the studies. Dogs may have experienced more than one episode of the adverse reaction during the study.

In foreign suspected adverse drug reaction (SADR) reporting over a 9 year period, incidences of adverse reactions related to meloxicam administration included: auto-immune hemolytic anemia (1 dog), thrombocytopenia (1 dog), polyarthritis (1 dog), nursing puppy lethargy (1 dog), and pyoderma (1 dog).

Adverse Reactions Observed During Two Field Studies		
Clinical Observation	Meloxicam (n=157)	Placebo (n=149)
Vomiting	40	23
Diarrhea/Soft Stool	19	11
Bloody Stool	1	0
Inappetence	5	1
Bleeding Gums After Dental Procedure	1	0
Lethargy/Swollen Carpus	1	0
Epiphora	1	0

Post-Approval Experience: (Rev 2010)

The following adverse events are based on post-approval adverse drug experience reporting. Not all adverse reactions are reported to FDA/CVM. It is not always possible to reliably estimate the adverse event frequency or establish a causal relationship to product exposure using these data. The following adverse events are listed in decreasing order of frequency by body system.

Gastrointestinal: vomiting, anorexia, diarrhea, melena, gastrointestinal ulceration

Urinary: azotemia, elevated creatinine, renal failure

Neurological/Behavioral: lethargy, depression

Hepatic: elevated liver enzymes

Dermatologic: pruritus

Death has been reported as an outcome of the adverse events listed above.

Acute renal failure and death have been associated with use of meloxicam in cats.

Effectiveness: The effectiveness of meloxicam was demonstrated in two field studies involving a total of 277 dogs representing various breeds, between six months and sixteen years of age, all diagnosed with osteoarthritis. Both of the placebo-controlled, masked studies were conducted for 14 days. All dogs received 0.2 mg/kg on day 1. All dogs were maintained on 0.1 mg/kg oral meloxicam from days 2 through 14 of both studies. Parameters evaluated by veterinarians included lameness, weight-bearing, pain on palpation, and overall improvement. Parameters assessed by owners included mobility, ability to rise, limping, and overall improvement. In the first field study (n=109), dogs showed clinical improvement with statistical significance after 14 days of meloxicam treatment for all parameters. In the second field study (n=48), dogs receiving meloxicam showed a clinical improvement after 14 days of therapy for all parameters; however, statistical significance was demonstrated only for the overall investigator evaluation on day 7, and for the owner evaluation on day 14.

How Supplied: Meloxidyl® 1.5 mg/mL Oral Suspension: 10, 32, 100 and 200 mL bottles with small and large dosing syringes.

Storage: Store at controlled room temperature 68-77° F (20-25° C).

Manufactured for: Ceva Santé Animale, S.A.

Marketed by: Ceva Animal Health, LLC, Lenexa, KS 66215

Meloxidyl® is a registered trademark of Ceva Santé Animale, S.A.

According to *Benchmarks 2016: A Study of Well-Managed Practices*, released in August 2016 during CVC Kansas City, revenue growth among top-performing veterinary practices is up an average of 7 percent over 2015 reports. The number of transactions per veterinary hospital has also increased, with total doctor and nondoctor transactions 36 percent higher than last year.

“Well-Managed Practice owners attribute the revenue growth, in part, to getting more efficient and productive,” states Denise Tumblin, CPA, primary author of *Benchmarks 2016* and owner of WTA Veterinary Consulting (formerly Wutchiett Tumblin and Associates), in the executive summary. One possible explanation may be rising staff-to-doctor ratios, which this year increased to 4.7 team members per doctor, up from the 4-to-1 ratio that held steady for many years previously, the report states.

Specifically, medical revenue in Well-Managed Practices is up 6 percent this year (from \$582,000 to \$614,700), and diets and other revenue is up 22 percent (from \$66,200 to \$80,500). Doctor-provided transactions are up 31 percent, from 2,900 to 3,800, while prescription refills and other nondoctor transactions are up 42 percent, from 2,400 to 3,400.

To be considered for participation in the Well-Managed Practice study, a veterinary practice had to meet the following criteria:

- Patients come first.
- The practice runs efficiently.
- Practice owners enjoy the practice of veterinary medicine.
- The practice owners foster a culture of respect.

“The idea is that to explore how these topnotch performers practice high-quality medicine, energize team members and generate profits,” states the introduction to *Benchmarks 2016*.

More info is available at dvm360.com/benchmarks2016. dvm360

The five freedoms of animals

Based on the Farm Animal Welfare Council Guidelines developed for cattle in the U.K. in 1979:

1. Freedom from hunger and thirst by ready access to fresh water and diet to maintain health and vigor.
2. Freedom from discomfort by providing an appropriate environment, including shelter and a comfortable resting area.
3. Freedom from pain, injury or disease by prevention or rapid diagnosis and treatment.
4. Freedom to express normal behavior by providing sufficient space, proper facilities and company of the animal's own kind.
5. Freedom from fear and distress by ensuring conditions and treatment that avoid mental suffering.

Failure to provide for any of these leads to suffering.

law on animal cruelty to the abused animal's experience. And this means law enforcement may look to veterinarians to testify for these animals.

Melinda Merck, DVM, who owns Veterinary Forensics Consulting in Austin, Texas, is working to educate veterinarians to prepare them to speak for voiceless pets. Merck spoke about how veterinarians can assess suffering in animal cruelty cases at the recent International Veterinary Emergency and Critical Care Symposium (IVECCS) in Grapevine, Texas. Consider these takeaways about veterinarians' ever-increasing role in this challenging area of medicine.

The state of words

Your state's animal cruelty laws may address both pain and suffering in pets, and Merck says this is important, because it means the law is now recognizing other ways animals can suffer besides physical pain. Whether it's short-term, chronic or intermittent, you need to consider emotional suffering in every case.

"Veterinarians can have difficulty in

this area," Merck says. "Veterinarians are what I call golden retriever witnesses. We're used to people liking us, so we're not used to the adversarial courtroom experience."

But, she says, there are a number of tools you can use to prepare to speak to the pet's suffering, including the five freedoms of animals (see sidebar, left), pain models and assessments, and the 2015 AAHA/AAFP Pain Management Guidelines for Dogs and Cats. As a veterinarian with regular experience and contact with pets daily, you are poised to be an expert in pets' welfare. After all, in every veterinary visit you're making an assessment on your ability to treat, mitigate and alleviate suffering.

Emotional suffering

We know pets experience emotional suffering, and it's been a driver for the enrichment and Fear Free movements, Merck says. For example, research has proven the human sadness system and the guinea pig separation distress circuit in the brain are similar.

Merck points to Franklin D. McMillan's book *Mental Health and Well-being in Animals* (Wiley-Blackwell, 2005) for more clues to pets' mental states, including boredom, distress and emotional maltreatment. A critical factor in each case, Merck says, is to consider the species, sex, breed and age to determine the pet's needs. She offered this breakdown:

- Boredom has both physical and psychological impacts, and it's the most evident.
- Distress is how an animal copes with an unpleasant affect. The causes may include boredom, pain, thirst, hunger, loneliness or fear manifestations.
- Emotional maltreatment: It's important to note the link between emotional states and physical health. Adverse emotion can cause distress, anguish and suffering. It can cause long-term problems, including separation anxiety, depression and more.

Merck also advises veterinary practitioners to look to the work of Rebecca Ledger, a British Columbia-based animal behaviorist. "Suffering can be inferred using behavioral and physical measures," Merck says. "It's important to watch for negative emotional states or the absence of positive states."

How do you assess emotion?

Clearly pets can't tell you how they feel, and most behaviorists will shy away from ever telling you exactly what a dog or cat is feeling—it is unknowable without the ability to communicate at a higher level or use some sort of Star Trekkie Vulcan mind meld not yet invented by modern technology.

But technology can help. Consider this: Merck advises using video to capture and evaluate signs of the pet's emotions, including the animal's behavioral expression and the physical evidence. Ask yourself this: Do you note negative emotional states or the absence of positive states?

For behaviors, Merck advises watching for overt expressions, vocalization, locomotion, posture and the lack of self-maintenance. She also watches for signs of anxiety; a vigilant phase; apprehensiveness or worry caused by unfamiliar surroundings, people, animals, handling, noises or smells; and a paw-lift. When pets are worried, there's a correlative increase in cortisol concentrations. Also watch for these signs:

- avoiding eye contact
- ears back, mouth slightly open
- hiding
- dilated eyes
- barking or agitation
- separation anxiety
- excessive paw-licking.

Merck also identified the following signs of a pet's mental state and some of the situations that might cause them. Pets may suffer from frustration when they can't perform the activities they need to—for example, they're denied social interaction, can't get to the source of their aggravation or can't

reach something they need to get to, such as a female dog needing to reach her babies.

Pets may also experience depression, Merck says. This is a phase of learned helplessness and it takes a long time—many months of neglect, such as prolonged kenneling, isolation, barren environment and repeated abuse. To identify this state, you need to watch for absence of a positive affective state—for example, the pet is not interested in play, the dog doesn't chew on sticks, eat, retrieve or seek to be petted, Merck says. Remember, you need to look to both what's causing the pet's state and what's lacking.

Parting thoughts

When you open your awareness to emotional suffering, Merck also advises you to consider large-scale cases of neglect you may encounter, such as hoarding, puppy mills and domestic violence cases.

If you're uncomfortable with the laws in your state, Merck recommends contacting your state legislature. She said she's found legislators will become responsive when they hear a message from eight or more people, and they begin to think the concern applies to a broader swath of their constituents.

For veterinarians who are wary of being the voice for pets with law enforcement or the legal system, Merck encourages them to have more confidence in their training and in their ability to learn to advocate for animals. "Because animals can't speak, veterinarians can speak for them with observation and documentation," Merck says. [dvm360](#)





>>> “I needed to learn to be a veterinarian first, but wildlife veterinary medicine had always been in the back of my mind,” Drew says.

When Mark Drew, DVM, MS, DACZM, a veterinarian for the Idaho Department of Fish and Game, graduated from veterinary school at the University of Minnesota in 1987, the path to practice in free-ranging wildlife management was much different from what it is today.

“Prior to 1980 there were only three free-ranging wildlife veterinarians in the country who were working for wildlife management agencies. Now there are about 40,” Drew says. “I started with an undergraduate degree in wildlife management and a master’s degree in zoology before I went to veterinary school. There weren’t the same opportunities for internships that there are now, because they just didn’t exist yet.”

Because the position deals with disease on a population level as well as those of an individual animal, the specialized skills needed for a job in the field are far-ranging. “Since we’re a wildlife management agency there needs to be a basic understanding of wildlife population management—things like resource management, ecology and natural resources,” Drew says.

Part of the pathway

There are two national associations—the American Association of Wildlife Veterinarians and the American As-

sociation of Zoo Veterinarians—that can provide resources, education and help connect interested veterinarians to internships or residencies in the field. “Both associations put out a peer-reviewed journal (the *Journal of Wildlife Diseases* and the *Journal of Zoo and Wildlife Medicine*), which have great information” he says. “Part of the pathway for someone who wants to pursue a job in wildlife management is connecting with those groups to find the opportunities for internships and jobs in the field. Both associations are good resources, both in educational items and connections, and have been established for a long time.”

Though internship and residency programs have come a long way, Drew believes there’s still a ways to go regarding the education veterinarians interested in wildlife medicine would need in the veterinary school curriculum. “We deal with students who are interested in coming out and seeing what wildlife veterinary medicine is like in a two-week externship, but there’s nothing built into the curriculum that provides the background for these students,” Drew says. “They may have an exotic animal track, but nothing that looks at the population level, which is what we typically do. There are things that apply, like pathology and epidemiology, and all the basic veterinary skills, but there needs to be something that connects students to wildlife management because that’s what the agency does.”

A veterinarian first

Drew worked at a mixed animal practice in Wisconsin for a few years before moving on to a residency in zoo and wildlife medicine. “I needed to learn to be a veterinarian first, but wildlife veterinary medicine had always been in the back of my mind. My undergraduate mentor, Dan Trainer, was one of the fathers of wildlife disease for wildlife managers and veterinarians,” he says. Trainer planted the seed for the combination of a wildlife management degree and a veterinary medicine degree with the idea of working as a veterinarian in wildlife disease for a management agency.

The job pool in the free-ranging wildlife veterinary field is small—currently there are about 40 in the United States and Canada—but if there was one veterinarian on staff in each state and province, there would be about 60, Drew says. So there would be room to grow if the states and provinces created more positions, he says. But there are also wildlife veterinary opportunities in the U.S. Department of Agriculture, the U.S. Fish and Wildlife Service, the National Park Service, the U.S. Forest Service, tribal governments and the military. International job opportunities also exist through various governmental agencies or non-governmental organizations.

Education is another aspect of free-

Primary functions of a free-ranging wildlife management veterinarian

Under the general context of wildlife health and management, a big part of Drew’s primary responsibilities is disease surveillance and taking biological samples to monitor the presence or absence of disease or changes in existing disease in wildlife populations. Some of this surveillance data is from live animals and some is from animals found dead. Conducting necropsies on animals found dead by the public or agency personnel is an important component of the job. Then he applies this disease information to wildlife population management and works with wildlife biologist in the agency to understand and monitor how a disease may affect the wildlife populations.

As the veterinarian on staff for the Idaho Department of Fish and Game, Drew is also in charge of the controlled substances used in the agency. He also works with captive wildlife permit applications, importation and exportation of wildlife, report writing, and dissemination of information about diseases of concern in wildlife. He occasionally provides information on wildlife health and disease issues for the state legislature or other state agencies.

ranging wildlife veterinary positions. “Diseases that occur in wildlife or for which wildlife can act as a reservoir may have human implications—like tuberculosis, plague, rabies and other zoonoses—and we work with the Department of Human Health to communicate to the public and physicians about the relative risks of these diseases in various wildlife species and how to avoid exposure,” Drew says.

The same principles apply with risks to domestic animal herds, like cattle, and wildlife. For example, in Idaho where Drew is, some elk are infected with *Bruceella abortus*, which can be transmitted to cattle. “We work with and communicate with the Idaho Department of Agriculture and livestock owners to minimize the risk to their herds and we also have to manage the elk populations with the same goal,” Drew says.

Another component of education is to manage inquiries from hunters and trappers who contact Drew when they find something that seems out of the ordinary. “We try to educate and inform the hunting and trapping public to identify various pathogens in the animals that they have harvested and to provide advice on how to avoid exposure to these pathogens to minimize the risk to themselves, their pets and livestock.” **dvm360**

Balancing Protein and Sustaining Appetites in Chronic Kidney Disease Patients

Answers to Common Questions

Nutrition is a cornerstone of therapy for pets with chronic kidney disease (CKD). We posed a few of the most common questions on nutritional management of cats and dogs with CKD to our clinical nutritionists, in order to provide you with useful, implementable clinical tips backed by evidence.

Q: Will the protein content in renal foods cause my geriatric patients to lose muscle mass?

A: While it is essential to avoid excess protein for pets with CKD, it is also important that the animal's daily-recommended protein allowance is met. Cats with kidney disease have been shown to maintain lean body mass and nitrogen balance when fed foods containing between 20- and 24-percent metabolizable energy (ME) from protein.¹

Hill's® Prescription Diet® k/d® Feline and Canine both contain appropriate protein levels above the National Academies' National Research Council's Recommended Dietary Allowances.

Q: What if I am looking for a food that is higher in protein than typical renal foods for patients with decreased muscle mass?

A: Supporting healthy kidney function while maintaining lean muscle mass requires more than just protein.

Therapeutic renal foods are more than controlled protein foods — they are formulated to be calorically dense; contain controlled amounts of phosphorous and sodium, and increased amounts of antioxidants, omega-3 fatty acids, B vitamins and soluble fiber; and have a neutralizing effect on acid base balance.

Q: What is the level of clinical evidence behind a reduced phosphorus food without controlled protein content vs. a therapeutic renal food?

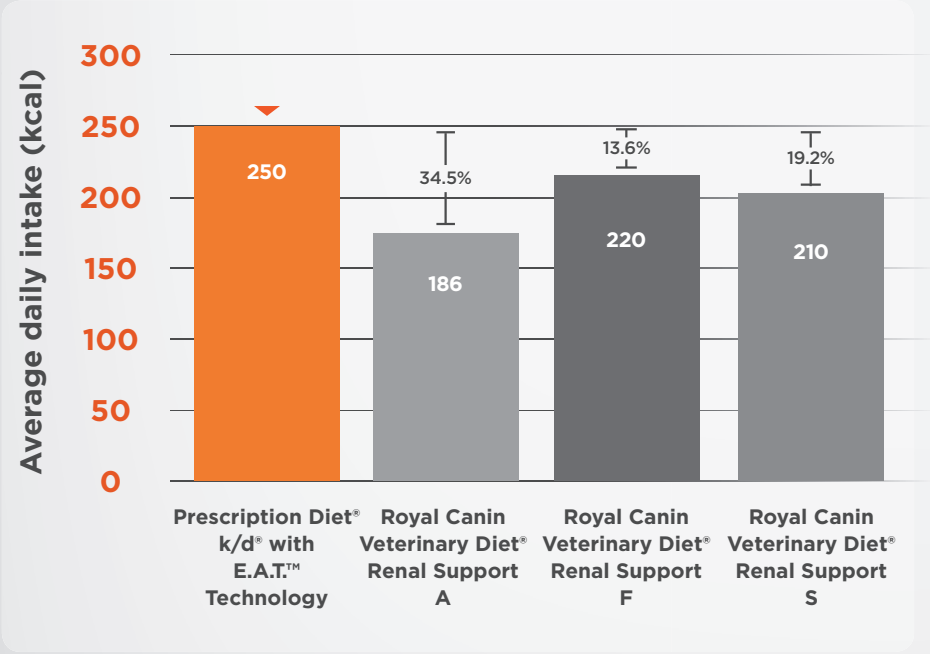
A: While the optimal amount of protein for dogs and cats with CKD is unknown, significant research does exist investigating the impact of renal foods on incidence of uremic crises and survival.

Hill's® Prescription Diet® k/d® Canine is the only food proven to significantly reduce the number of uremic episodes and renal-related mortality when fed to dogs with naturally occurring CKD.² In fact, dogs with CKD live more than 3x longer when fed k/d vs. a typical adult grocery brand.² Hill's® Prescription Diet® k/d® Feline is the only food evaluated in a randomized, controlled clinical study and proven to significantly reduce episodes of uremic crises and renal-related mortality in cats with naturally occurring kidney disease.³

Q: I have concerns about the palatability of therapeutic renal foods — how can I make sure my patients consume enough of the food I recommend to meet their calorie needs?

A: Palatability is critical for CKD patients with metabolic changes that may impact their appetite. Scientists and veterinarians at Hill's worked for years on renal formulas that stimulate appetite of cats with CKD. They measured their unique food preferences, identified the key aromas and flavors that triggers food intake, and mapped the taste profiles against a database of ingredients to create maximum appetite improvement.

This proprietary Enhanced Appetite Trigger (E.A.T.)™ Technology is now available in Hill's® Prescription Diet® k/d® Feline formulas, proven to stimulate appetite of cats with CKD and increase their caloric intake by up to 34%.⁴



¹Kirk CA, Hickman MA. Dietary protein requirement of cats with spontaneous renal disease (abstr). *J Vet Intern Med Assoc.* 2000;14(3):351.
²Jacob F, Polzin DJ, Osborne CA, et al. Clinical evaluation of dietary modification for treatment of spontaneous chronic renal failure in dogs. *J Am Vet Med Assoc.* 2002;200(8):1163-1170.
³Ross SJ, Osborne CA, Kirk CA, et al. Clinical evaluation of dietary modification for treatment of spontaneous chronic kidney disease in cats. *J Am Vet Med Assoc.* 2006;229(6):949-957.
⁴Hill's® Prescription Diet® k/d® with chicken dry vs. Royal Canin Veterinary Diet® Renal Support A, F and S. Only k/d Feline dry contains E.A.T.™ Technology.

Centrifuges

JorVet has a range of centrifuges for a variety of lab work needs



Economy-8 Centrifuge

Higher G-forces mean faster serum separations, ventilation system keeps samples cool.



Ultra Digital Centrifuge

Digital controls, 4-speed memory, Swing-Out option, 12v DC motor



ZipSpin Centrifuge

Spins blood and urine, digital speed and time display, variable speed 0-6,000 rpm.



Jorgensen Laboratories, Inc.
Loveland, CO 80538
(800) 525-5614
www.JorVet.com Info@JorVet.com

In this profession, life is your treasure map

Don't worry about all the squiggly lines. Remember they lead to an "X," no matter where you are in the veterinary industry. *By Amanda Inman, CVPM*



I was one of those kids who had my life mapped out on a dream board when I was 8 years old. It was perfect. I would be valedictorian of my high school class, go to college on a full-ride scholarship, work in a zoo as a tiger trainer and conservationist, get married but have no children (because who has time for that) and be extraordinarily happy taking vacations around the world with my six-figure income.

My magazine cutout collage of life perfection was just about as realistic as the unicorns on my bedspread coming to life and whisking me away to a castle to announce me as their long-lost princess! All those perfectly sequenced goals and I did one of those things: I got married.

'I've felt the heartbreak of failure'

I came close to my magazine cutout life collage in a few places. I was an honor student, just not a valedictorian. I worked in a pet store during high school (OK, it wasn't tigers, but I did have to tame a few feral kittens once or twice). I was awarded a scholarship to a university out west to study biology, but I chose to stay local and marry my high school sweetheart just months after graduating.

I must have decided at some point that I did have plenty of time in life because we had a child in our early twenties. I went to college off and on for years one class at a time at night after work or online after our son went to sleep. I was offered a six-figure salary once, but only as a last ditch effort by management to keep me from turning in my resignation letter as an office manager of six years. I've owned my own business and felt the



heartbreak of failure. As for vacations, yeah, I've had a few, but the farthest I ever got was Cancun—so I wouldn't exactly call myself "worldly."

Now, before I go on, I need you to know that my life today is great. That's what compels me to share all this with those of you right now who may feel like your path hasn't been "perfect"—that it hasn't gone the way you thought it would go or dreamed it would from the start. Life's map is sometimes more like one of those kids' treasure maps made with crayons with squiggly dotted lines that eventually lead to an "X." There is treasure there. You simply have to recognize it when you find it.

The answer that made the veterinary hospital administrator laugh

My treasure was walking into a local veterinary clinic on a whim one day and asking to fill out an application. Later, in my interview, I remember the hospital administrator asking me, "If you could be anything in the world, what would it be?"

"A tiger trainer in the circus!" I answered. (Yes, I said "circus" instead of "zoo." The 8-year-old me wanted to grow up and have a real job, but the closer-to-30-year-old me wanted to just have some fun.)

You can't beat yourself up for not having events happen in a certain order and then assume that certain aspects of life have just passed you by.

That answer during my interview is still something our hospital administrator laughs with me about to this day. She thought it was great that I quickly and enthusiastically had an answer. Well, I'd been planning it to some degree since I was 8, so...

I was hired, and I restarted at the bottom of a career ladder. Fast-forward nine years later, and I've been a receptionist, a team leader, a supervisor, an office manager and now a

practice manager who earned her title of CVPM (certified veterinary practice manager). I had to take a U-turn on my life path and retrace all my steps to dig up the "X" hiding my success underneath. I've never been happier, and I appreciate my success more because of the delayed and crazy path that got me to it.

Sometimes you just have to be OK with taking a detour when it comes to achieving your goals. You can't beat yourself up for not having events happen in a certain order and then assume that certain aspects of life have just passed you by.

I beg you to stop, take an assessment and, if you don't like where you


are, check your directions. Maybe you took a wrong turn and just need to look around, read the signs and (as my smartphone's map app says), "recalculate" your route. [dvm360](#)

Amanda Inman, CVPM, is practice manager at Pet Care Clinic of Kokomo in Kokomo, Indiana.



Chase unit shown with wall-mounted Matrix VMS®, Cardell® Touch Monitor, VetPro® Complete Digital Dental X-ray System, VetPro® 1000 Dental Delivery and 255 LED Procedure Light

Take a BITE out of periodontal disease.

 Industry-leading VetPro® dental solutions by Midmark are built to work together to detect and treat disease at the onset—today and for years to come. We'll be with you every step of the way with top-notch clinical support and training. Now is the time to invest without taking a huge bite out of your budget! We're offering the best deals of the year on our dental equipment, but this offer ends December 31st.

To learn more, call (844) 627-3565 or visit: midmarkanimalhealth.com/DVM1016.



Better Patient Care. Better Business.™

Midmark Corporation, Dayton, OH.





**Want
your
opinion
heard?**

Contact us on
Twitter: @dvm360,
on Facebook:
facebook.com/
dvm360, or via
e-mail: dvmnews
@ubm.com

My experience: The AVMA isn't serious about the gender wage gap

A dvm360 reader says she was brushed aside when she brought a guilty verdict of discrimination to the association's attention.

The gender wage gap for female veterinarians has resurfaced as a result of the salary wage calculator. (See "Yes, female veterinarians earn less" in the July issue of dvm360.) Not only are women paid less starting their careers, but some sources claim the wage gap increases the longer women practice and may be as high as \$30,000.

Just as important as the figures is the American Veterinary Medical Association (AVMA) holding colleagues accountable who engage in discriminatory practices. I've had personal experience with this. In 1995, my suit—McMillan vs. the Massachusetts Society for the Prevention of Cruelty to Animals and Angell Animal Medical Center—was a landmark victory for pay discrimination for female veterinarians, changed case law in Massachusetts and was deemed one of the most important employment discrimination cases of the 1990s.

If a verdict of gender discrimination and violation of the Equal Pay Act is not sufficient evidence for the AVMA to take action, then what is?

Our veterinary code of ethics states, "Veterinarians must be honest and fair in their relations with others and not engage in fraud, misrepresentation or deceit." When I filed a complaint with the AVMA Judicial Committee, it was dismissed for lack of sufficient evidence. I have waited 20 years for a response to my question: If a verdict of gender discrimination and violation of the Equal Pay Act in U.S. Federal District Court is not sufficient evidence for



the AVMA to take action, then what is?

I have yet to receive an answer. As long as the AVMA refuses to have criteria of sufficient evidence for gender discrimination and pay inequity, it is only giving lip service to treating women veterinarians equally.

*Marjorie McMillan,
DVM, ACVR, CCRP
Windhover Veterinary Center
Walpole, Massachusetts*

A response from the AVMA

Editor's note: After we posted the above letter from Dr. Marjorie McMillan on dvm360.com, the AVMA asked for the opportunity to weigh in. Here is their response:

Thank you for providing us with an opportunity to respond to Dr. McMillan's letter and to clarify the situation she described. It's not our intent to dismiss or minimize the difficulties that Dr. McMillan faced in her employment that led to her legal complaint against her employers; the situation appears to have left a chronic wound that was re-opened for Dr. McMillan 20 years later when

the gender wage gap was brought into the spotlight by our new graduate salary calculator. It was certainly not our intent to resurface the strong emotions she must be feeling right now.

Interestingly, the gender wage gap has been present for many years, and we've reported its presence every year in our senior survey results and in our economic reports. Yet it wasn't until a visual representation of the calculator garnered attention that the long-overdue uproar among veterinarians occurred. The veterinary profession is not unique in this regard; a recent report showed that female physi-

cians are paid \$18,677 less than their male counterparts. We're pleased that the issue is top-of-mind for more veterinarians, and we've been collaborating with the Women's Veterinary Leadership Development Initiative (WVLDI) to determine a course for researching the causes and developing solutions to achieve equal pay for equal work in the veterinary profession.

Regarding Dr. McMillan's statements, some clarification is needed. Dr. McMillan's complaint was given thorough due process by the AVMA Judicial Council when it was filed in 1995. Over the following several

years, the Judicial Council—which is comprised of veterinarians—communicated frequently with Dr. McMillan regarding the complaint and the decision. The end result was that her colleagues on the council felt there were insufficient grounds for disciplinary action. The process and deliberation involved in Judicial Council review is different from that of our judicial system, and isn't intended to replace or duplicate legal proceedings. It's clear that Dr. McMillan disagrees with the council's findings, but it's inaccurate to imply that her requests for information were ignored.

PROVEN. TRUSTED.

HOORAY!

THANK YOU...

for protecting millions of dogs
with A Happy Vaccine Experience™

Bronchi-Shield[®] ORAL is backed
by published, peer-reviewed
data. You made it America's #1
oral *Bordetella* vaccine with over
17 million doses and counting!¹

Bronchi-ShieldORAL.com



**Want
your
opinion
heard?**

Contact us on
Twitter: @dvm360,
on Facebook:
facebook.com/
dvm360, or via
e-mail: dvmnews
@ubm.com

Dark shadows still haunt this veterinarian after years of drug use by former employer

Fear of blacklisting by community, colleagues kept doctor silent, and regrets linger.

Regarding “When the practice owner is the dark shadow” (September dvm360 Community | Feedback letter): Thank you for bringing this serious problem to light. I’d like to share my own experience in hope that further discussion of this topic, and perhaps some solutions, might come to pass.

As a new grad, I took a job at a rural practice with a much-loved and popular local veterinarian who had been in practice there for 25 years. We were a typical old school/new school pair of vets—he often opted to

just try a steroid-antibiotic injection, while I would strive to promote a higher standard of care by using diagnostics.

Because the area was a potpourri of different types of people—some well off, some struggling financially—we organically reached a reasonable division of clients between us: He kept the ones he had seen for years or who had severe financial restrictions, and I took the clients who were interested in a long-term wellness approach and not a quick fix.

After several months it became apparent

that this doctor was radically different in actions and attitudes on certain days, and along with the discrepancies in the outdated drug logs, I put two and two together and realized he had a major problem with ketamine, along with various other pharmaceuticals. Like many addicts, he was quite effective at both denial and gaslighting when confronted, leading to a nonresolution of this problem other than to manage the clinic around his addiction. At the time I was the only associate and felt leaving was not an option, because so

DAN SCOTT & ASSOCIATES



D•EYE *vet*

DIGITAL OPHTHALMOSCOPE

ACTUAL IMAGES TAKEN WITH THE D-EYE VET LENS ATTACHMENT AND A SMARTPHONE:



RABBIT



CAT



DOG



HORSE



many animals needed me to counter-act poor care from him. In addition the office manager and technician staff begged me to try to work the problem out rather than report him, because they were terrified of losing their jobs.

At one point I was hopeful that resolution would come after he got a DUI and the state board mandated supervision. This was carried out by a veterinarian from another practice who sometimes visited, reviewed drug logs, quizzed the staff and monitored our daily routine. The practice owner was subject to random drug testing by the county. Guess what? County drug tests don't include ketamine. He became crafty, able to sneak the tip of an insulin needle under the metal cover of unopened bottles, then replace the missing solution with something else. This became obvious when animals who should have been anesthetized weren't.

He was using our urine samples to pass his drug tests. It was the last straw, and I left the practice.

When animal surgeries or treatments went wrong, I felt certain that this would result in a suspension of his license, or at least an inquiry that would require him to stop practicing. But *no one* ever reported him. This is still astonishing to me. I tried to approach the supervising veterinarian with my concerns, and he told me to keep documenting the drug log. He never mentioned it again.

After randomly answering a phone call from a supplier one day, I realized he was obtaining drugs from many distributors. This happened to coincide with a conversation I had with a local client at a bar-restaurant one night. Not a bit sober at the time, the client informed me that "everyone knew they could get drugs from Doc."

I braced myself for another confrontation. When this came to pass, I had documentation of drugs missing and discrepancies in the drug log. His response was to act shocked and tell me he would respond to this issue immediately. He called a staff meeting the next day and accused staff members of stealing drugs. He insisted that all staff members submit a urine sample for

analysis that day. We were never notified of the results.

A couple of weeks later, a client who was doing some construction at his house told me that all of the urine samples were in the refrigerator in his shed. He was using our urine samples to pass his drug tests. It was the last straw, and I left the practice.

Throughout this whole drama I documented every event and conversation and mailed it all to myself via registered mail. I figured the unopened letters with tracking would be a good way to document to the state board, judge or jury that I was trying to do the right thing should any legal issues arise.

That was ten years ago, and the practice is still open today. It is well-known that he has a drug problem and that many animals have been hurt or died because of him. Multiple clients have left the practice, but he is still practicing medicine.

Why did I not report him to the authorities, you ask? As I mentioned before, he was a well-loved member of the community. Despite his addiction he has a heart of gold, and animals that needed care got care at that hospital, regardless of the clients' ability to pay. I recall people coming in to pay 10 dollars a week toward their bill. Many never paid, and he lost thousands of dollars each year but kept on giving reduced-cost or free care. I still admire him for that altruism.

If I had reported him, I would have been blacklisted by the community where I lived and practiced. It would have been a very high-profile case. As a "tattletale," would I have been shut out of the entire veterinary community and never been able to get another job? How could I have reported it anonymously? I have encouraged people whose animals have been hurt by the practice to file a formal complaint, but they don't. The supervising veterinarian did nothing. He likely felt the same as I did: unable to take the chance that whistleblowing would end his career.

This still haunts me today, as I now see animals that have been hurt by his bad surgeries and misdiagnoses. How many animals have died because I've been silent? I believe that I am a good veterinarian, but sometimes I feel like a sad excuse for a person who let fear get in the way of doing the right thing.

I would like to make this story known and start the conversation so

that this does not happen to other new grads. I am in tears as I write this 10 years after it all happened and hoping I have the courage to hit send. There are people who, if they read this, will know exactly who I am talking about. I am worried that I will be judged, but maybe I deserve it. I also worry that if nonveterinarians read something

like this, the whole profession will be judged, and I feel like we have been undeservedly judged enough that our self-esteem as a profession is suffering.

Thank you to whoever managed to wade through this long story, and thank you to dvm360 for bringing up important topics like this one. **dvm360**

—Name withheld



Complete Course in External Skeletal Fixation

Linear & Hybrid ESF Sessions

November 11 - 13th and 13 - 14th, 2016



This course is a comprehensive forum in which skills in orthopedics and external skeletal fixation can be developed and refined. While centered around external skeletal fixation, key principles relevant to all fracture treatment modalities are covered in depth.

Registration & Information

Phone 903-295-2196 / 800-828-4639
imexdesk@imexvet.com / www.imexvet.com

Location

Frisco, Texas (Dallas-Fort Worth)





Lifestyle matters, but work ethic does too

Dr. Greenskin's morning quickly switches from Pokémon GO to an impromptu discussion on her investment in the practice with Dr. Codger.

It's a crisp fall morning when Dr. Greenskin heads out the door for her early pre-clinic jog. As she runs, she reflects on her recent get-together with Dr. Headlights. It was refreshing to catch up with an old friend and know that she's not alone in her struggle to begin a career in veterinary medicine. As her stride gets more comfortable and she settles in to the run ahead, she begins to ponder the multitude of paths she and her classmates have embarked on since that fateful day of graduation from veterinary school.

Suddenly, the phone vibrates in

her armband, interrupting her Harry Potter podcast. Expecting an early-morning veterinary crisis, she reluctantly slows to check the screen of her phone. Ha! There's a charmander just two blocks away! A tiny detour is a small price to pay for some serious Pokémon GO street cred. She runs to grab the charmander, becoming more energized and ready to handle anything the clinic throws her way today.

Back to reality

Dr. Greenskin walks into the veterinary clinic at the same time as her

Medi-Dose[®]
EPS[®]

**Press-In
Bottle Adapters**
Turn any Bottle
into a Dispenser!

- 4 Sizes Fit Most Bottles
- Bottle can be Capped
- Compatible with EPS Oral Syringes and Dispensers

Unit Dose,
Bar Coding,
Pharmacy &
Nursing Supply
Experts!

MediDose.com • 800.523.8966

8:30 appointment (always just a bit awkward). As she rushes to the back office to de-fur her lab coat, she finds good old Doc Codger busy at his desk, as usual. She extends the cursory, “Good mornin’ Doc,” but the quick out doesn’t work this time. “Hey there Greenskin,” the old vet barks without looking up from his black-and-white composition book. “Take a seat for a second.”

Dr. Greenskin concedes, feeling apprehensive. And rightly so. After a full year of practice together, she has received none of the formal performance evaluations she had expected.

“How dedicated are you to this job?” Dr. Codger inquires. A long, nervous pause ensues. Dr. Greenskin thinks this might be some kind of trap. She starts to blurt out, “This is the job I’ve been wanting my entire ...”

Dr. Codger interrupts. “You don’t act like this is what you want to be doing with your life.”

Dr. Greenskin isn’t used to Dr. Codger being so direct, and she starts to blink back tears. Dr. Codger continues, “Look around you. Do you ever notice that all of the morning employees are here before you, and that they’re still here when you leave? Have you ever wondered why I’m sitting at this desk for hours after you’ve gone home and even on your off days? Most of us are here toiling away.”

Feeling attacked, Dr. Greenskin takes a defensive posture. “If you want or expect more from me, just tell me that!” she exclaims. She feels herself losing her calm and takes a few deep breaths. “I am fulfilling the agreement we made. My clients are happy. You never review the numbers with me, but I have been checking them myself, and actually my pay has been below the percentages we agreed on—I just didn’t want to bother you with it!”

Doc Codger is barely able to make the slightest gasping sound before Dr. Greenskin goes on, “If you have any feedback, or advice, or directives you want me to follow, just tell me! We haven’t had so

much as a staff meeting since I’ve been here, so I have no idea why or where this is coming from!”

De-escalation with thoughts for the future

Dr. Codger begins to feel that he may not have approached his concerns about Dr. Greenskin in the most sensitive manner. At the same time, he admires the spunk he’s found in his young associate. He knows he’s picked a good one, and the numbers are certainly supporting that view. He feels a little guilty that he hasn’t been communicating with her on a regular basis. Since the practice has been doing well, he’s been spending his time on more pressing issues, and his productive associate has held her own. But now things are boiling over.

“Take it easy there, Greenskin,” Dr. Codger finally replies. “I didn’t mean to jump down your throat. And I agree that I haven’t been communicating like I should, so please accept my apology. But we do need to start talking about where you want to go with this thing. I’m getting older. My health is not the greatest, and I can’t even see the catgut anymore to sew in a straight line. I want to slow down, so I’d like to explore how you feel about taking on more responsibility.”

The young Dr. Greenskin is shocked and silent. She enjoys her current lifestyle. Sure, a few extra bucks would help tremendously, but she’s not so sure it’s worth impinging on the relatively acceptable work-life balance she’s enjoyed while working in this small rural practice.

“Can we take a break and schedule some time to discuss this further?” she asks. “My first and second appointments are already waiting.” Dr. Codger nods, and the two part ways for the day. Dr. Greenskin can’t wait to log on to dvm360.com tonight to research and start planning for what might be a very important conversation with her boss.

To be continued! **dvm360**

Dr. Jeremy Campfield works in emergency and critical care private practice in Southern California.



What high definition did for video, we’ve done for surgical lighting.

What you’ll see under the MI-1000 Surgery Light is a game-changer: the absolutely whitest, brightest, most shadow-reduced illumination of any light in its class. That and practically zero heat output. Check out the specs at Medillum.com or call for details and experience high-def illumination as never before.

www.medillum.com

547 Library Street, San Fernando, CA 91340
(800) 831-1222



Student debt: Good for the economy?



Brief Summary of Prescribing Information

For Animal Use Only **NADA#141-342**
Alfaxan® CIV (alfaxalone 10 mg/mL)
Intravenous injectable anesthetic for use in cats and dogs.
BRIEF SUMMARY OF PRESCRIBING INFORMATION
This summary does not include all the information needed to use Alfaxan® safely and effectively. See full package insert for complete information.

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

INDICATIONS:
Alfaxan® is indicated for the induction and maintenance of anesthesia and for induction of anesthesia followed by maintenance with an inhalant anesthetic, in cats and dogs.

DOSAGE AND ADMINISTRATION (highlights): Please refer to the complete package insert for full prescribing and administration information before use of this product.

Administer by intravenous injection only. For induction, administer Alfaxan® over approximately 60 seconds or until clinical signs show the onset of anesthesia, titrating administration against the response of the patient. Rapid administration of Alfaxan® may be associated with an increased incidence of cardiorespiratory depression or apnea. Apnea can occur following induction or after the administration of maintenance boluses of Alfaxan®. The use of preanesthetics may reduce the Alfaxan® induction dose. The choice and the amount of phenothiazine, alpha2-adrenoreceptor agonist, benzodiazepine or opioid will influence the response of the patient to an induction dose of Alfaxan®.

When using Alfaxan®, patients should be continuously monitored, and facilities for the maintenance of a patent airway, artificial ventilation, and oxygen supplementation must be immediately available.

Alfaxan® does not contain an antimicrobial preservative. Do not use if contamination is suspected. Strict aseptic techniques must be maintained because the vehicle is capable of supporting the rapid growth of microorganisms. Failure to follow aseptic handling procedures may result in microbial contamination which may cause fever, infection/sepsis, and/or other life-threatening illness.

Once Alfaxan® has been opened, vial contents should be drawn into sterile syringes; each syringe should be prepared for single patient use only. Unused product should be discarded within 6 hours. Alfaxan® should not be mixed with other therapeutic agents prior to administration.

INDUCTION OF GENERAL ANESTHESIA:
CATS: Induction dose guidelines range between 2.2 - 9.7 mg/kg for cats that did not receive a preanesthetic, and between 1.0 - 10.8 mg/kg for cats that received a preanesthetic. The Alfaxan® induction dose in the field study was reduced by 10 - 43%, depending on the combination of preanesthetics (dose sparing effect).

DOGS: Induction dose guidelines range between 1.5 - 4.5 mg/kg for dogs that did not receive a preanesthetic, and between 0.2 - 3.5 mg/kg for dogs that received a preanesthetic. The Alfaxan® induction dose in the field study was reduced by 23 - 50% depending on the combination of preanesthetics (dose sparing effect).

To avoid anesthetic overdose, titrate the administration of Alfaxan® against the response of the patient. The average Alfaxan® induction dose rates for healthy cats and dogs given alfaxalone alone, or when alfaxalone is preceded by a preanesthetic, are indicated in species specific tables found in the full package insert. These tables are based on field study results and are for guidance only. The dose and rate for alfaxalone should be based upon patient response.

MAINTENANCE OF GENERAL ANESTHESIA:
CATS and DOGS: Following induction of anesthesia with Alfaxan® and intubation, anesthesia may be maintained using intermittent Alfaxan® intravenous boluses or an inhalant anesthetic agent. Please review the full package insert for guidance on recommended intermittent doses of Alfaxan and their expected duration of effect. Clinical response may vary, and is determined by the dose, rate of administration, and frequency of maintenance injections.

Alfaxan® maintenance dose sparing is greater in cats and dogs that receive a preanesthetic. Maintenance dose and frequency should be based on the response of the individual patient.

Inhalant anesthetic maintenance of general anesthesia in cats and dogs: Additional low doses of Alfaxan®, similar to a maintenance dose, may be required to facilitate the transition to inhalant maintenance anesthesia.

WARNINGS:
When anesthetized using Alfaxan®, patients should be continuously monitored, and facilities for the maintenance of a patent airway, artificial ventilation, and oxygen supplementation must be immediately available.

Rapid bolus administration or anesthetic overdose may cause cardiorespiratory depression, including hypotension, apnea, hypoxia, or death. Arrhythmias may occur secondary to apnea and hypoxia. In cases of anesthetic overdose, stop Alfaxan® administration and administer treatment as indicated by the patient's clinical signs.

Cardiovascular depression should be treated with plasma expanders, pressor agents, anti-arrhythmic agents or other techniques as appropriate for the treatment of the clinical signs.

HUMAN WARNINGS:
Not for human use. Keep out of the reach of children.

Exercise caution to avoid accidental self-injection. Overdose is likely to cause cardiorespiratory depression (such as hypotension, bradycardia and/or apnea). Remove the individual from the source of exposure and seek medical attention. Respiratory depression should be treated by artificial ventilation and oxygen.

Avoid contact of this product with skin, eyes, and clothes. In case of contact, eyes and skin should be liberally flushed with water for 15 minutes. Consult a physician if irritation persists. In the case of accidental human ingestion, seek medical advice immediately and show the package insert or the label to the physician.

The Material Safety Data Sheet (MSDS) contains more detailed occupational safety information. To report adverse reactions in users or to obtain a copy of the MSDS for this product call 1-844-253-2926.

DRUG ABUSE AND DEPENDENCE:

Controlled Substance: Alfaxan® contains alfaxalone, a neurosteroid anesthetic and a class IV controlled substance.

Abuse: Alfaxalone is a central nervous system depressant that acts on GABA receptor associated chloride channels, similar to the mechanism of action of Schedule IV sedatives such as benzodiazepines (diazepam and midazolam), barbiturates (phenobarbital and methohexital) and fospropofol. In a drug discrimination behavioral test in rats, the effects of alfaxalone were recognized as similar to those of midazolam. These biochemical and behavioral data suggest that alfaxalone has an abuse potential similar to other Schedule IV sedatives.

Physical dependence: There are no data that assess the ability of alfaxalone to induce physical dependence. However, alfaxalone has a mechanism of action similar to the benzodiazepines and can block the behavioral responses associated with precipitated benzodiazepine withdrawal. Therefore, it is likely that alfaxalone can also produce physical dependence and withdrawal signs similar to that produced by the benzodiazepines. Psychological dependence: The ability of alfaxalone to produce psychological dependence is unknown because there are no data on the rewarding properties of the drug from animal self-administration studies or from human abuse potential studies.

PRECAUTIONS:
1. Unpreserved formulation: Alfaxan® injection does not contain an antimicrobial preservative. Do not use if contamination is suspected. Strict aseptic techniques must be maintained because the vehicle is capable of supporting the rapid growth of microorganisms. Failure to follow aseptic handling procedures may result in microbial contamination which may cause fever, infection/sepsis, and/or other life-threatening illness. Any solution remaining in the vial following withdrawal of the required dose should

be discarded. Once Alfaxan® has been opened, any unused product should be discarded within 6 hours. Alfaxan® should not be mixed with other therapeutic agents prior to administration.

2. Rapid arousal: Careful monitoring of the patient is necessary due to possibility of rapid arousal.
3. Preanesthesia: Benzodiazepines may be used safely prior to Alfaxan® in the presence of other preanesthetics. However, when a benzodiazepine was used as the sole preanesthetic, excitation occurred in some dogs and cats during Alfaxan® anesthesia and recovery.

4. Apnea: Apnea may occur following administration of an induction dose, a maintenance dose or a dose administered during the transition to inhalant maintenance anesthesia, especially with higher doses and rapid administration. Endotracheal intubation, oxygen supplementation, and intermittent positive pressure ventilation (IPPV) should be administered to treat apnea and associated hypoxemia.
5. Blood Pressure: The myocardial depressive effects of Alfaxan® combined with the vasodilatory effects of inhalant anesthetics can be additive, resulting in hypotension. Preanesthetics may increase the anesthesia effect of Alfaxan® and result in more pronounced changes in systolic, diastolic, and mean arterial blood pressures. Transient hypertension may occur, possibly due to elevated sympathetic activity.

6. Body Temperature: A decrease in body temperature occurs during Alfaxan® anesthesia unless an external heat source is provided. Supplemental heat should be provided to maintain acceptable core body temperature until full recovery.

7. Breeding Animals: Alfaxan® has not been evaluated in pregnant, lactating, and breeding cats. Alfaxalone crosses the placenta, and as with other general anesthetic agents, the administration of alfaxalone may be associated with neonatal depression.

8. Kittens and Puppies: Alfaxan® has not been evaluated in cats less than 4 weeks of age or in dogs less than 10 weeks of age.

9. Compromised or Debilitated Cats and Dogs: The administration of Alfaxan® to debilitated patients or patients with renal disease, hepatic disease, or cardiorespiratory disease has not been evaluated. Doses may need adjustment for geriatric or debilitated patients. Caution should be used in cats or dogs with cardiac, respiratory, renal or hepatic impairment, or in hypovolemic or debilitated cats and dogs, and geriatric animals.

10. Analgesia during anesthesia: Appropriate analgesia should be provided for painful procedures.

ADVERSE REACTIONS:

The primary side effects of alfaxalone are respiratory depression (apnea, bradypnea, hypoxia) and cardiovascular derangements (hypertension, hypotension, tachycardia, bradycardia). Other adverse reactions observed in clinical studies include hypothermia, emesis, unacceptable anesthesia quality, lack of effectiveness, vocalization, paddling, and muscle tremors.

Adverse drug reactions may also be reported to the FDA/CVM at 1-888-FDA-VETS or http://www.fda.gov/AnimalVeterinary/SafetyHealth/ReportsProblem/ucm055305.htm

OVERDOSE: Rapid administration, accidental overdose, or relative overdose due to inadequate dose sparing of Alfaxan® in the presence of preanesthetics may cause cardiopulmonary depression. Respiratory arrest (apnea) may be observed. In cases of respiratory depression, stop drug administration, establish a patent airway, and initiate assisted or controlled ventilation with pure oxygen. Cardiovascular depression should be treated with plasma expanders, pressor agents, antiarrhythmic agents or other techniques as appropriate for the observed abnormality.

HOW SUPPLIED:

Alfaxan® is supplied in 10 mL single-use vials containing 10 mg alfaxalone per mL.

Manufactured for: Jurox Inc. American Century Tower II, 4520 Main Street, Kansas City, MO 64111

Alfaxan is a registered trademark of Jurox Pty Limited. US Patent # 7,897,586

The answer: It's complicated. Let me explain.

A recent article in the *Wall Street Journal (WSJ)* summarized the findings of a new report from the White House's Council of Economic Advisers (CEA) with the headline "Student Debt Helps, Not Harms the Economy." Many readers noted they were simply perplexed by this. But this really wasn't what the CEA report found at all.

The CEA examined the school debt of all student debt holders, including those who failed to obtain a degree or certification, and those receiving associate, bachelor's and graduate degrees. And the report provides a comparison of mean debt and income for these groups as well as segmentation by type of school (for-profit, nonprofit and public).

What the CEA report really says

Last year federal student loans helped 9 million Americans. The payoff for bachelor's and associate degree recipients? They earn an additional \$1 million and \$360,000 more in their lifetime income, respectively, compared to high school graduates. The average debt of all student loan borrowers is roughly \$17,000, with 59 percent having less than \$20,000. But the rise in student loan debt and the number of those with high levels of debt or low incomes has created a rise in default rates that are being addressed with the new income-based repayment plans, such as the Revised Pay As You Earn (REPAYE) that caps the debt service to 10 percent of discretionary income.

Perhaps the most important finding was that aggregate student loan debt remains small relative to aggregate income (9 percent of aggregate income in 2015, up from 3 percent in 2003). The CEA report

TACHYCARDIC, TACHYPNEIC, HYPERTENSIVE?

AND THAT'S JUST THE CLINICIAN...

INDUCE CALM throughout your clinic,
update your anesthetic protocol.

Alfaxan[®] (Alfaxalone 10 mg/mL)

Intravenous Anesthetic Injection

REGISTERED IN DOGS AND CATS WITH UNMATCHED VERSATILITY
ALFAXAN IS ALL YOU NEED FOR INDUCTION

- ✓ Iso-osmotic pH neutral formulation means no pain on injection and no tissue irritation if administered peri-vascularly.¹
- ✓ 10x & 5x overdose safety margin in dogs and cats respectively.^{2,3}
- ✓ Compatible with all pre-anesthetic protocols⁴ means minimal change.
- ✓ Rapid onset of anesthesia gives you quick control of a patient.
- ✓ Clear-headed recoveries with prompt return to normal behaviour.⁶
- ✓ No accumulation with repeat usage⁷ enabling accurate management of anesthetic depth.

Call Jurox Animal Health now to arrange your transition.
844-ALFAXAN (844-253-2926)

¹ Heit, M.C., et al. Cardiovascular and respiratory safety of Alfaxan[®] CD RTU in cats premedicated with acepromazine, medetomidine, midazolam or butorphanol. in ACVIM. 2004

² Muir, W., et al., Cardiorespiratory and anesthetic effects of clinical and supraclinical doses of alfaxalone in dogs. Vet Anaesth Analg, 2008. 35(6): p. 451-462.

³ Muir, W., et al., The cardiorespiratory and anesthetic effects of clinical and supraclinical doses of alfaxalone in cats. Veterinary Anaesthesia and Analgesia, 2009. 36(1): p. 42-54.

⁴ Comparison of pain on injection during induction of anaesthesia with alfaxalone and two formulations of propofol in dogs, Michou et al, Vet Anaesth Anal

⁵ Heit, M.C., et al. Safety and efficacy of Alfaxan[®] CD RTU Administered once to cats subcutaneously at 10 mg/kg. in ACVIM. 2004

⁶ A comparison of anaesthetic recoveries in cats following induction with either alfaxalone or ketamine and diazepam, Gieseg et al, 2013, NZVJ

⁷ Whitem, T., et al., The pharmacokinetics and pharmacodynamics of alfaxalone in cats after single and multiple intravenous administration of Alfaxan[®] at clinical and supraclinical doses. J Vet Pharmacol Ther, 2008. 31(6): p. 571-9

INDICATIONS: Alfaxan[®] is indicated for the induction and maintenance of anesthesia and for induction of anesthesia followed by maintenance with an inhalant anesthetic, in cats and dogs.

Important Alfaxan[®] Risk Information: Warnings, Precautions and Contraindications: When using alfaxalone, patients should be continuously monitored, and facilities for the maintenance of a patent airway, artificial ventilation, and oxygen supplementation must be immediately available. Alfaxan[®] does not contain an antimicrobial preservative. Do not use if contamination is suspected. Strict aseptic techniques must be maintained because the vehicle is capable of supporting the rapid growth of microorganisms. Careful monitoring of the patient is necessary due to possibility of rapid arousal. Alfaxan[®] is contraindicated in cats and dogs with a known sensitivity to alfaxalone or its components, or when general anesthesia and/or sedation are contraindicated. Adverse Reactions: The most common side effects of alfaxalone include respiratory and cardiovascular derangements, such as apnea, hypotension and hypertension.

Appropriate analgesia should be provided for painful procedures.

© Registered Trademark of Jurox Pty. Limited



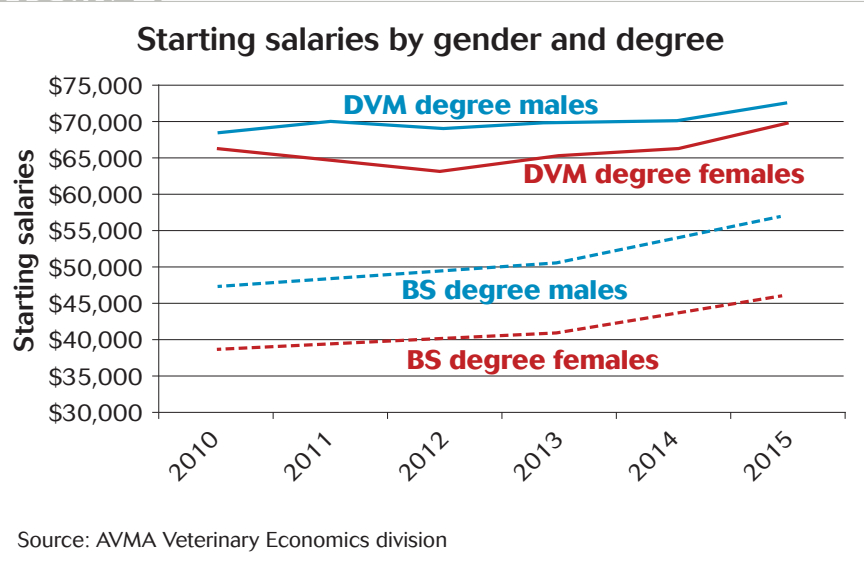
www.alfaxan.com

Repeatable. Reliable. Relax **Alfaxan[®]**



authors suggest that the gains from a college education provide increased economic activity, offsetting the debt servicing. And because many of the students with college student loans wouldn’t have been able to attend college without access to federal loans, the added value of output from these graduates far exceeds the costs.

FIGURE 1



So the student loans (debt) are good for the economy.

In essence, the CEA report really focuses on undergraduate debt and the economic return to education. This message is similar to what we’ve noted about veterinary student net present value (NPV). The income earnings of veterinary graduates on average still exceed the cost of obtaining the DVM degree. Those costs include the lost earnings from a bachelor’s degree for the four years in veterinary college, the real cost of tuition, fees and living expenses during veterinary college and the lost opportunity of earning a bachelor’s level salary. (See figure 1, above.)

Education ROI: still high!

The falling NPV for veterinary students and some of the difference in the NPV between genders is a result of the declining gap between average veterinarian salaries and average bachelor’s degree holder salaries. Of course, another principle reason for the decline in NPV for veterinarian degrees is the increasing debt-to-income ratio.

But the title of the *WSJ* article suggests that student debt enhances economic activity, or increases GDP. This is incorrect. The CEA report notes only that the expenditures on education provide a large ROI. If you consider the change in the percent of disposable income spent on student debt in 2003 (3 percent) and that spent on student debt in 2015 (9 percent) you might conclude from the *WSJ* title that the economy has improved (and GDP increased) as a

result of the increased percent of disposable income that is student debt.

Because 6 percent more of aggregate income has been used to fund education between 2003 and 2015, 6 percent of disposable income hasn’t been spent on other goods and services. More important, current education costs haven’t been paid in today’s dollars but have instead been transferred to future dollars. Obtaining education services today and creating the economic activity associated with those expenditures will be subtracted from future earnings, so future economic activity will be reduced.

If I ask, “Are we better off with or without educational debt?”—assuming we have the same level of education occurring—clearly the answer is we’re better off without educational debt. When services consumed today are paid today, we use past revenue to pay for current services and current GDP has been increased. If we use taxpayer funds to pay the educational costs, we’re transferring funds from taxpayers to education providers, and there’s little economic activity increase. We’ve simply changed the consumer from taxpayers to educators. But if we borrow funds to pay for educational services we’re transferring future consumption to current consumption, from students to investors.

My take? Education remains a good investment, but paying for it out of future earnings will reduce future economic activity. **dvm360**

Dr. Michael Dicks is director of the American Veterinary Medical Association’s Economics Division.

NexGard[®] (afoxolaner) Chewables

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

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

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

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

Dosing Schedule:

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

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

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

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

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

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

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

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

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

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

Table 1: Dogs With Adverse Reactions.

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

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

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

In the US field study, one dog with a history of seizures experienced a seizure on the same day after receiving the first dose and on the same day after receiving the second dose of NexGard. This dog experienced a third seizure one week after receiving the third dose. The dog remained enrolled and completed the study. Another dog with a history of seizures had a seizure 19 days after the third dose of NexGard. The dog remained enrolled and completed the study. A third dog with a history of seizures received NexGard and experienced no seizures throughout the study.

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

Mode of Action:

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

Effectiveness:

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

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

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

In well-controlled laboratory studies, NexGard demonstrated >97% effectiveness against *Dermacentor variabilis*, >94% effectiveness against *Ixodes scapularis*, and >93% effectiveness against *Rhipicephalus sanguineus*, 48 hours post-infestation for 30 days. At 72 hours post-infestation, NexGard demonstrated >97% effectiveness against *Amblyomma americanum* for 30 days.

Animal Safety:

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

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

Storage Information:

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

How Supplied:

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

NADA 141-406, Approved by FDA

Marketed by: Frontline Vet Labs™, a Division of Merial, Inc.
Duluth, GA 30096-4640 USA

Made in Brazil.

©NexGard is a registered trademark, and ™FRONTLINE VET LABS is a trademark, of Merial. ©2015 Merial. All rights reserved.

1050-4493-03
Rev. 1/2015

FRONTLINE VET LABS
A DIVISION OF MERIAL LIMITED

FLEA AND TICK control dogs run to, not from...

NexGard® (afoxolaner) for dogs is:

POWERFUL so it keeps killing fleas
and ticks all month long

EASY to give because it's soft
and beef-flavored

NexGard
(afoxolaner) Chewables

Dogs
love
it!¹



See brief summary on page 42

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

¹ Data on file at Merial.



©NexGard is a registered trademark, and FRONTLINE VET LABS is a trademark of Merial. ©2015 Merial, Inc., Duluth, GA. All rights reserved. NEX16TRADEAD (01/16).



Beware the board

A veterinarian's version of a horror story is a state board inquiry. But trust us, you can escape alive.

Dr. Horvath has been in veterinary practice for 28 years. Over that time, his namesake Horvath Animal Hospital has gone from a single-practitioner clinic to a well-respected five-doctor hospital.

One of the hospital's associate veterinarians, Dr. Jenna Kirke, recently received a letter from the state board of veterinary medical examiners. She was asked to respond to a complaint by a client. She was to send all relevant medical records to the board, along with a written response to the client complaint.

Dr. Kirke was shaken. She had always considered herself diligent and professional. She read the complaint and believed she had done everything possible to assist the pet and the client in this situation.

A trusted advisor

Coincidentally, Dr. Horvath had served on the state board for 10 years. Dr. Kirke went to him for some advice, asking for any tips to respond to a board inquiry. She was confident of her factual response but wanted to know about any specific protocols involved in communicating with the state board.

Dr. Horvath stressed how imperative it was to be honest and truthful in all responses. Based on his experiences as a board member, he gave Dr. Kirke the following suggestions:

1. Keep the narrative response to one type-written page in length.
2. Maintain a clinical and professional—not aggressive—tone in the narrative. Also, when possible, abstain from editorial comments.
3. Be sure all submitted medical records are in order and meet state practice act requirements for medical recordkeeping.
4. Be prompt when responding to a board inquiry. Late submissions are frowned upon and can be perceived as a passive-aggressive gesture.
5. If you must appear in person before the board, bring legal counsel. When you appear before the state veterinary board, they will have legal counsel present (in the form of a deputy attorney general). Legal representation is actually encouraged by many boards to ensure that license holders are properly assisted

during a state-sanctioned hearing.

6. Finally, remember that the board is not the enemy. The goal is to resolve conflicts between the animal-owning public and veterinarians in a fair and equitable manner.

Dr. Kirke appreciated Dr. Horvath's suggestions, but she remained upset and defiant about her circumstances. Dr. Horvath reminded her that most all veterinarians who practice clinical medicine for long enough will have an encounter with the state board—it's almost a rite of veterinary passage. His parting words of wisdom were to take it in stride and remain diligent and professional.

Dr. Kirke incorporated Dr. Horvath's suggestions when responding to the board. The board ultimately notified her that they found no cause to take any action and closed the case complaint.

Rosenberg's response

Veterinary practitioners experience both rewards and setbacks. Difficult dogs, feisty horses and state board inquiries can be equally stressful for a veterinarian. But it's important to remember that regulatory boards oversee every profession and allow consumers and professionals a structured forum to resolve their differences. In the end, the animals are the true benefactors.

By far, the majority of board complaints are settled in favor of the veterinarian. After sitting on a state board for more than a decade, I can tell you that most client complaint issues stem from poor communication between the animal owner and the veterinarian. Dr. Horvath gave Dr. Kirke some valuable recommendations. The young doctor survived the experience a little wiser and none the worse for wear from her uncomfortable experience. **dvm360**

Dr. Marc Rosenberg is director of the Voorhees Veterinary Center in Voorhees, New Jersey, and served on the New Jersey Board of Veterinary Medical Examiners for 12 years. Although many of his scenarios in "The Dilemma" are based on real-life events, the veterinary practices, doctors and employees described are fictional.

Don't be fooled.

Take a closer look at the pet insurance company you're recommending. If it doesn't cover preventive care and exams, it doesn't cover the whole pet.

Know what you're staking your reputation on. Because some pet insurers' promises may not be what they appear to be.

petinsurance.com/dontbefeooled
866-838-4874



Nationwide[®]
is on your side

Underwritten by Veterinary Pet Insurance Company (CA), Brea, CA, an A.M. Best A rated company (2013); National Casualty Company (all other states), Columbus, OH, an A.M. Best A+ rated company (2014). Nationwide, the Nationwide N and Eagle, and Nationwide Is On Your Side are service marks of Nationwide Mutual Insurance Company. ©2016 Nationwide. 16VET4126



Glass half full advice for young DVMs

You can confront today's economic challenges and remain optimistic about the veterinary field at the same time. Here are three tips to help you survive—and thrive—in your chosen profession.

Veterinary journals are overflowing with articles on the shameful student debt situation in our profession. The debacle is a national embarrassment, and it impacts a wide range of people—from parents who want to see their veterinarian children have a good life to the clients who end up paying more because professional salaries have to be earmarked for student debt service.

I was recently reminded of how worried DVM candidates are about student debt when, after delivering a presentation at a veterinary school, several students approached me to solicit advice. Namely, they wanted to know how the current generation of new veterinarians should plan aggressively to navigate obstacles and thrive economically.

Drawing on years of advice from older doctors and the experiences of my consulting clients, I gave the eager questioners a few recommendations I



hope will help them as they confront the realities of today's tough economic environment.

1. Remember that each market is unique

Follow me on this, because it's important: On every day of every age, there are coexisting economic realities that result in bad times for some and good times for others. For example, are these good oil times or bad oil times? That depends on whether you sell oil or consume it. You may be loving gasoline at \$2 a gallon, but on a recent visit to Bahrain, I saw abandoned, partially constructed skyscrapers everywhere.

The same duality applies to the marketplace in which our profession and its practitioners operate. For example, while veterinarian pay is static or increasing only slowly, interest rates and inflation are very low by historical standards. So are these good times or bad times for veterinarians?

My perspective is that licensed veterinarians are experiencing relatively good times. In a country where many workers are either unemployed or underemployed, most able-bodied veterinarians can and will locate decent-paying work.

That doesn't mean the position will be perfect (the hiring clinic may not be in your preferred location or espouse your exact practice philosophy), but work is out there. Money can be earned and saved. In that respect, veterinarians are way ahead of those in manufacturing, mining, construction and so on. We are employable and (perhaps more importantly) likely to remain employed.

The fact that banks are in pain and the government is pumping out stimulus is an advantage for veterinarians as well. For creditworthy borrowers (more on this later), this is a time of unparalleled opportunity. The current credit market and interest rates and terms should be extremely enticing to DVMs aspiring to establish their own practice, enter into a professional partnership, expand an existing facility or purchase veterinary equipment.

My own practice manager has been telling me I need to buy new diagnostic equipment for our veterinary hospitals. When I see how low the interest rates are in this post-2009 financial crash environment, more often than not I respond positively.

In my consulting practice, I am seeing buy-in offers for high-quality practices that are owner-financed at 4 and 5 percent. Drug wholesalers are offering unprecedented long-term, low-interest financing to doctors opening new clinics. In many areas of the country, commercial real estate mortgages are being granted at remarkably low rates.

In every cycle of the "boom and bust" capitalist economic system, there will be winners and losers. I recommend being aware, nimble and opportunistic in today's unique economy.

2. Get the better of compound interest

If you incur credit card debt at the rate of 17 percent, what you owe doubles about every 4.5 years. That should terrify you. But if you buy a modest,

Medi-Dose® EPS®

LiquiDose® Labels

Labels to suit all your needs...
from solids, liquids and syringes
to ampules, IV's and equipment!

Unit Dose,
Bar Coding,
Pharmacy &
Nursing Supply
Experts!



Use Our Inexpensive MILT® Software to Print Bar Codes, Graphics,
Special Fonts, Tall Man Lettering, Shapes, Logos and Symbols.

MediDose.com • 800.523.8966

high-quality, fairly priced home and the mortgage is the same as you would have paid in monthly rent, you gain:

- > Equity in your property against which you can borrow for a clinic or practice buy-in
- > Loan interest at a third of what credit cards charge
- > Deductibility of that interest at the federal level and that of most states
- > Appreciation potential as your area recovers from the last economic downturn
- > A boost in your credit score as soon as you make a few on-time mortgage payments.

Never, ever stay in a position with credit if a lower-interest option is available. Every single additional interest rate point is geometrically toxic to your long-term well-being, and evidence of your consistent commitment to good financial planning will increase your chances of being invited to participate in clinic ownership or partnership.

For example, the first two questions I ask my legal and consulting clients who are considering selling their practices are: “Do you have an associate? If so, do they seem to know how to handle money?” Boneheaded credit decisions are a major clue that they don’t.

3. Seek the advice of older veterinarians

Managing staff, dealing with other doctors, keeping clients happy and balancing home life with work life are stressful undertakings, but do you really believe that yours is the first generation to face tremendous strain? Of course not. So seek out opportunities to listen to and learn from older veterinarians who have been coping with stresses and disappointments for decades.

As a 30-something veterinarian, I learned from the three vets I knew best: my father and the two “competitors” (aka lifetime friends and colleagues) he had supper with on a monthly basis.

They didn’t teach me how to practice. They taught me about practice—things like the positive and negative aspects of having family members work in your practice and the types of clients who are most likely to run up a big bill and then walk away. I also learned how to size up the honesty of a drug rep, the importance of developing personal thrift and the critical

importance of delayed gratification.

These doctors had some specific stress-avoidance tips for me as well, though you may not want to try all of them at home. For example, one of them told me that if a client wakes me up at 3 a.m. for an emergency and then fails to pay after “rushing out of the house without [his] wal-

let,” I should call the client at 3 a.m. every night to check on the patient’s progress. **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.



MORE INSIGHT

helps you make the most of your practice’s cash flow.

ENSURE ACCESS TO CREDIT | ACCELERATE RECEIVABLES | IMPROVE PAYMENT PRACTICES | MONITOR & PROJECT CASH | PURSUE FINANCIAL WELL-BEING



PNC|CFO™ *Call a Healthcare Business Banker at 877-566-1355 or go to pnc.com/hcprofessionals*

Cash Flow Optimized

Cash Flow Optimized is a service mark of The PNC Financial Services Group, Inc. (“PNC”). Banking and lending products and services, bank deposit products, and treasury management services, including, but not limited to, services for healthcare providers and payers, are provided by PNC Bank, National Association, a wholly owned subsidiary of PNC and Member FDIC. Lending and leasing products and services, including card services and merchant services, as well as certain other banking products and services, may require credit approval. All loans and lines of credit are subject to credit approval and require automatic payment deduction from a PNC Bank business checking account. Origination and annual fees may apply. ©2015 The PNC Financial Services Group, Inc. All rights reserved. PNC Bank, National Association. **Member FDIC**

At Nutramax
we remember
why we do
what we do.



Take advantage of everything Nutramax
has to offer with our programs...

nutramax[®]
LABORATORIES
VETERINARY SCIENCES, INC.

946 Quality Drive • Lancaster, SC 29720
nutramaxlabs.com • 1-888-886-6442

Products available through authorized Nutramax distributors or Nutramax direct.

Products created with you
and your patients in mind.

DASUQUIN[®]
ADVANCED

Denamarin[®]

NEW! Solliquin[™]
BEHAVIORAL HEALTH SUPPLEMENT

NEW! COB₁₂ ALEQUIN[™]

WELACTIN[®] 3

NEW! PROVIABLE-**FORTE**

CRANANIDIN[®]



Sign up to earn premium items.
nutramaxlabs.com/loyalty

CLINIC STAFF
PROGRAM

Staff members are eligible for
discounts on Nutramax products.

6 key lessons from my year of wellness plans

I was enthusiastic about implementing wellness plans at my practice, but I ran into difficulties with staff and clients. Here's what I learned. *By Jill Windy, DVM*

Congratulations! You've implemented a wellness program. Your veterinary team is behind it, clients love it, compliance is growing—and so is your bottom line.

Not exactly? As another year of patient care marches by, each of us is gaining a little more experience with what works—and what doesn't—in our veterinary practices' wellness plans. Here are some of my lessons learned:

1 Emphasize that this is a payment plan—not a big discount

I can't think of a better way to wreck a client's perceived value on any of your services than to heavily discount something. Why were they paying the previous price in the first place? Are all your services overpriced?

We have a small discount on our wellness programs (less than 10 percent), but we've had to really work to get the client and patient care teams to focus on the budgeting advantage for included services and preventive medications rather than the savings. It's an ongoing focus of getting the right message from team members to clients.

Our renewal rates suffered when our focus was on how much was saved instead of the benefits of “pay as you go,” because clients didn't always think it was worth it. We didn't do a good job of showing clients we were consistently providing the care their pets needed. In some instances, we

found diseases with early detection screening. Realigning our focus to emphasize the health benefits for patients and easy budgeting for clients is the true value of a wellness program. But you can't assume everyone will understand that. Keep on reiterating the right things to emphasize to clients when you talk about your wellness program.

2 Check that you're meeting your goals

You designed your wellness plan to focus on specific healthcare components—the preventive care and regular veterinary visits that keep pets happy and healthy. You set some growth targets. But did you meet them?

Our wellness plan focused on client bonding, preventive care and early detection screening. We examined our numbers for key services. We saw an increase in every category—number of plans, renewal rates, active clients, wellness exams, lab services, vaccines and doses of flea and heartworm preventives.

If you don't track your wellness plan goals, how will you know it's working?

3 Don't forget the client

While it's critical to involve your team in deciding which services to include and how to talk about them, remember that the client is king (or queen). We found that clients weren't using some of the perks in our original program, so we took them out. Our clients loved having individualized care and having preventives included in the program. Survey your clients to see what they think, and build a list of clients who didn't renew and find out why.

4 Be medically sound

As recommendations change, be sure your wellness program does too. Always be current with standards of care for your area and your patients' individual risk assessments.

5 Don't be afraid of the “M” word

Oh no. Marketing. Where are your clients looking for veterinary services and where

are you getting the word out about your clinic? Hopefully those two things match. Review your social media presence, exam room materials, waiting area brochures and posters, and staff and client conversations. Does every team member in the practice know their role in marketing and talking to potential and current clients about the plans?

We discovered a disparity in the way members of our client care team opened the subject when placing clients in the exam room. Finding the root cause (and, no, they're not deliberately trying to make your program fail) goes a long way to solving the problem. For example, we found out one team member was very uncomfortable talking about the wellness plans, so she didn't. We gave her further training and scripts and reviewed the real patient benefits of good compliance. That increased her confidence.

6 Remember change is the only constant

No matter how well we think we have things figured out, there's always room for improvement. Special situations arise. Bugs reveal themselves. Product availability or offers change. Remember to give yourself permission to change your wellness plan. Honor the contracts you have, but go ahead and change what you do moving forward.

We learn new things every single year we offer wellness plans. Whether you're in the middle of a wellness program already or are just toying with the idea of a client-bonding program of some type, the most important thing is to do something. Don't worry if it doesn't work right off the bat. As a wise veterinarian once told me, “If you don't have some bad ideas, then you aren't having enough ideas.” *dvm360*

Dr. Jill Windy owns Noah's Landing Pet Care Clinic in Elkhart, Indiana. This article is adapted from Benchmarks 2015: A Study of Well-Managed Practices by WTA Consulting and Veterinary Economics. For more info, see dvm360.com/benchmarks2015.



MEDICINE | Rehabilitation

10 easy ways to promote your rehab services

Do your veterinary rehabilitation services need some marketing rehab? Get in the underwater treadmill with us and we'll help flex those flabby client-acquisition muscles. *By Jane Harrell*

With so many different veterinary specialties cropping up, it can be hard for practitioners, let alone clients, to keep them all straight. I remember a few years ago when I heard about cold laser therapy for the first time. I couldn't help picturing veterinarians suggesting it, only to be met by blank stares and pet owners nationwide asking, "You want to laser my dog?" But marketing rehabilitation services doesn't have to be hard or confusing. The key? I spoke with several hospitals with established rehabilitation programs to find out.

Check out these 10 simple steps for how your hospital can do the same ...

1. Quit with the jargon

When I looked online for pet rehabilitation services, here are just a few descriptors I found on practice websites:

- > "thermal modalities"
- > "hydrostatic pressure"
- > "viscosity"

While these terms might work really well for practice staff, 50 to one odds say they'll cause clients to scoff or ignore you. It's time to vet your language, vets. Ask a trustworthy friend from outside the industry to come along for a session (or a few). Ask each staff member to privately explain the different types of rehab services you offer and why they're important. If your friend starts to have a blank stare, it's time to simplify your staff's script. Do the same for any video or written content you create.

2. Grab your film crew—or smartphone

I know, good video has always been a huge pain. It's expensive and time-con-



ORTHOPEDICS **M5**
Two ways to mess up a limping puppy

BEHAVIOR **M6**
The four Fs of stress in pets

GASTROENTEROLOGY **M7**
> Ultrasound and CT key in revealing the mystery behind a dog's sore left side
> A quick guide to gastric suppression in dogs and cats

dvm360.com/medicine
Find interactive cases, expert answers to your clinical questions, journal article summaries and much more.

suming. But with mountable cameras and smartphones, it's a lot easier than it used to be, and the public's expectations of video quality are easy to meet. After all, there's a reason YouTube is the world's second-largest search engine: video works.

Plus, through your rehab program, you'll have an abundance of pets who are visibly showing improvement or doing adorable things. Even if it's just a 10-second clip of a dog sitting on a bouncy ball or a disabled kitten learning how to eat standing up, make sure you're catching those moments.

Not sure how? First, get the client's permission (form at dvm360.com/rehabservices). And don't be afraid to ask! Most clients love seeing their pet in the social media spotlight. Next, set up a camera in your rehab room, attach a mobile camera (like a GoPro) to a willing technician or vet, or hire an intern to help. From there, your resident social media guru can crop the video length down to the best 10 to 20 seconds (you can do this for free via Instagram) and post it to social media, your website—everywhere.

Don't forget: Include a brief description of who the patient is, what he's doing or why he's there and where clients

can learn more about that service.

3. Exercise!

Feature an exercise your clients can do at home in a Facebook or Instagram Live post. Facebook's new Live feature allows businesses to livestream video from their page to their followers. In fact, Facebook is intentionally giving

"PR can be a really fun department that plays very well on Facebook because most of the patients are pets on their way to recovery. People on Facebook really like to see that. I've noticed our videos and photos of physical rehabilitation patients get a lot of views."

—Dara Longhini, marketing coordinator, VRC Specialty Hospital

live videos increased exposure right now—something hard for brands to get without an ad spend these days. Take advantage of this increased exposure to promote your rehab services by livestreaming a pet doing an exercise your clients can try at home.

Your livestream can be a patient (with your client's permission) or the office cat your clients all know and love. Center the DIY part around a topic you know is important to them, like how to keep arthritis pain at bay or how to give your pet a massage. Clients love feeling empowered to take better care of their pets, and they'll feel just that way while they absorb some immediate value from your rehab team.

"I think Facebook's the best way to reach out to clients," says Dara Longhini, marketing coordinator for VRC in Malvern, Pennsylvania. Longhini says Facebook is VRC Specialty Hospital's primary channel for promoting rehab services to existing clients.

4. Get the FAQ out

"For people who've never met us before, the website is one of the big ways people find us," says Krisi Erwin, DVM, CVA, CCRT, CVPP, owner of Wholistic Paws Veterinary Services in Hamilton, Virginia. The practice's website features a simple five-question FAQ section on pet rehabilitation that's written in plain-speak and brings traffic to the site from search engines.

5. Point the finger at

others (in a nice way)

Until now, we've talked a lot about original content, but there's also plenty of great information about physical rehabilitation for pets being published every day. This is content you can link to from your website, share on social media every week and even feature in your practice newsletter—and you

don't have to scour Google every hour to find it. Set up a free Google Alert for terms like "dog rehab" or "cat rehab" and have relevant news stories delivered to your inbox daily or weekly.

Once the alert is set up, you can review everything that's been recently published on the subject in one sitting, pick your favorites and share them with your clients on Facebook. Then your social media expert can track which stories reach the most people so you can link to them from your e-newsletter each month.

6. Sneak it in with the season

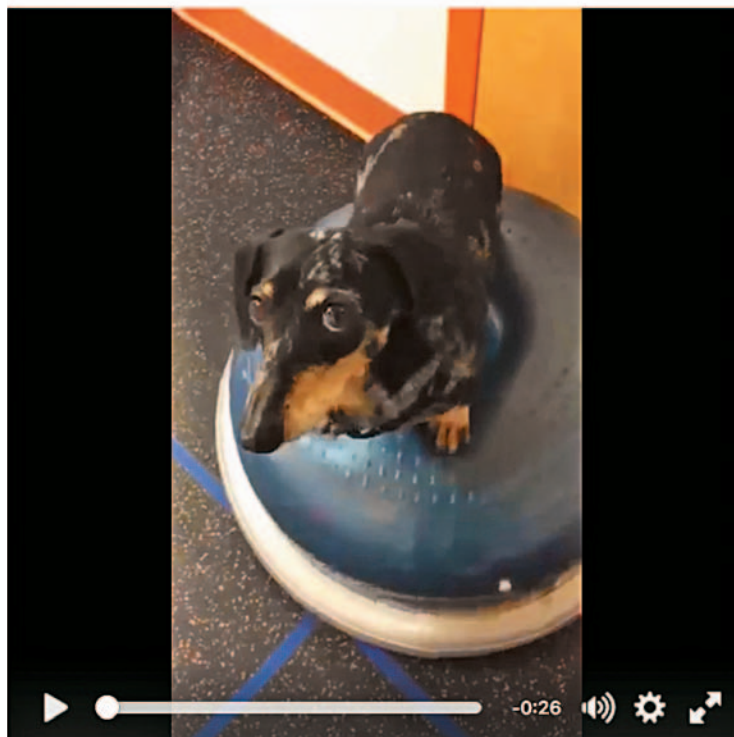
There are certain topics we talk about year in, year out: winter care, parasite prevention, heat safety and so on. Instead of sharing the same old tips, think about how you can make them new again with a focus on physical rehabilitation. Is your practice planning a communication about winter weather? Include a few rehabilitation tips for helping arthritic pets in the cold. Are you planning an end-of-summer event for clients? Think about doing a hydrotherapy pup party at your local pool before it closes for the season.

Wizard of Paws Physical Rehabilitation for Animals in Colchester, Connecticut, takes timely education to another level with special challenges that play off popular culture.

"The Biggest Loser is our fun contest to help owners help their dogs lose weight," says Wizard of Paws owner



Dachshunds like Lucia here are one of the breeds that can be pre-disposed to spinal conditions. This is why Lucia's mom, who is an employee at VRC, takes her to our Dr. Perone and our Physical Rehabilitation team for strengthening workouts. Here she is having a blast exercising to strengthen her hind end and core ("belly and back") muscles to keep her in tip-top shape! Keep up the hard work, girl!



>>> This practice shows off rehab services like this with real patients.

YOU WANT HAPPY PATIENTS AND CLIENTS ZYLKENE® KEEPS IT SIMPLE



TWO NEW WAYS TO SUPPORT BEHAVIOR – **SIMPLY**



120-COUNT BOTTLE

Provides flexibility for vet dispensing

Adapted for **long-term** use



BLISTER PACK

14-count designed for pet owners

Great for **short-term** use and trials



Zylkene is the only veterinary behavior supplement formulated with alpha-casozepine: keeps pets calm without drowsiness. Clinically proven for behavior problem management, Zylkene helps pets cope with changes to their environment and challenging situations. With a wide-range offering of clinic support tools, keep happy simple today.

Zylkene®
Keeping Happy Simple

1.800.267.5707
vetoquinolusa.com



Debbie Gross, DPT, MSPT, DABPTS, CCRP. “It also helps referring veterinarians to send their clients in for a weight loss solution they can take ownership in.” Both dogs and their owners can receive prizes for achievements.

7. Reminder: Use reminders

OK, this might seem like a no-brainer, but it’s an important one. Even if you see every sign, staff script, on-hold recording, brochure, email newsletter and social media post that goes out (ha!), that doesn’t mean your clients do. In fact, they’re probably missing or tuning out about 90 percent of it all, so frequent reminders about what

services are available are necessary. Care First Animal Hospital in Raleigh, North Carolina, keeps signs, brochures and other items around the clinic to be sure visiting clients know that rehab

example, women ages 35-54 who like senior or special-needs dogs). This is a great next step after really ramping up your interactions using the first three tips on this list.

“I tried to make the website as comprehensive as possible. When clients call us, it can be hard for them to talk about their own situation. I wanted to give them the ability to learn as much as possible without having to pick up the phone.”

—Krisi Erwin, VM, CVA, CCRT, CVPP

services are available. Maine Veterinary Referral Center in Scarborough, Maine, includes all the specialties in the prominent sidebar on the first page of every quarterly newsletter.

8. Spend just a little on social media advertising

If you’re already creating great videos and social media or website content about your rehabilitation services, consider spending a little for targeted ads to get your hard work the attention it deserves. The budget can be small—as little as \$1 per day—and you can limit who sees your promotion (for

9. Be seen and heard—or get in their faces

Whether it’s a puppy/kitten kindergarten class or a panel discussion on living with senior pets, after-hours seminars put you and your practice front and center in potential clients’ minds. Wholistic Paws Veterinary Services recently saw new clients come to the practice after a seminar on aging pets. The practice also regularly gives talks to local rescues and dog trainers.

10. Build a nice network

Whether your practice is a general one

that’s added a specialty or an exclusive specialty referral center, helping other area practice owners and teams understand the benefits of what you offer to their patients might be the most important way to gain new clients for your rehab services.

Each of the practices I spoke with for this article were doing local outreach to pet health professionals. As Longhini from VRC says, “Many referring veterinarians haven’t had much experience with up-and-coming techniques like e-stim, therapeutic ultrasound, hydrotherapy and cold-laser therapy.”

Every practice I spoke to also put special importance on keeping those referring veterinarians involved in ongoing care. You can’t guarantee local colleagues won’t see your new rehab service as a threat to their bottom line, but you can always do what you can to show them the benefits of the service to pets and guarantee you’ll send them back to their practice home for anything but rehab. [dvm360](#)

Jane Harrell is president of ‘cause Digital Marketing. She previously served as Head of Pet Owner Communications for IDEXX Laboratories and Senior Producer for Petfinder.com.



>>> Practice owner Krisi Erwin, DVM, CVA, CCRT, CVPP, talked up pets at a local speaking gig and got new clients out of the deal.



Two ways to mess up a limping puppy

This veterinary surgeon sees two diseases that are often overlooked in limping puppy cases. Watch those radiographs!

Before deciding on treatment, before nailing down a surgery time, don't skimp on the radiographs with initial stabs at these two conditions, says Jennifer Wardlaw, DVM, MS, DACVS, a concierge surgeon at Gateway Veterinary Surgery in St. Louis, Missouri.

Osteochondrosis dissecans (OCD)

"You have a puppy limping on one leg, and people forget how often these are bilateral," she says.

Even if the patient isn't limping on the other side, closely examine the



Localize the lameness
Lameness is a common malady in young dogs. Find out which conditions are most likely and get general guidance on their diagnosis and treatment by visiting dvm360.com/juvenilelameness.

radiographs and include that in your orthopedic exams.

"Eighty percent of shoulders in OCD cases are bilateral," she says.

Panosteitis vs. hypertrophic osteodystrophy (HOD)

Wardlaw says she understands why clinicians jump to conclusions when they think they see HOD.

"You're comfortable with [seeing and diagnosing HOD], you're familiar with that, you see it on the long bones, you feel the pain," she says.

And the temptation may be to stop there, without taking all the radiographs you need to make sure it's HOD and not panosteitis.

"Without looking at that metaphysis, you're not gonna know," she says. And that's important, because you won't treat the two the same.

"A young dog can have a fever and feel bad, and it can absolutely affect the growth plates, which is going to give them a much poorer prognosis in the severe cases," she says. "Don't just assume shifting-leg lameness in a young dog is panosteitis." **dvm360**

Rx Vitamins® for PETS

Professional Veterinary Formulas

Rx Renal Feline POWDER

A New Tasteless Powder to Increase Compliance



Rx Renal Feline powder is a complex formulation of multiple botanical extracts and nutraceuticals. This unique formula has been microencapsulated with a non-GMO lecithin material that renders the taste completely bland and acceptable to your feline patient. Rx Renal Feline powder can now be seamlessly blended in with your cat's renal diet without experiencing any problems with palatability.



Sold EXCLUSIVELY to veterinary professionals throughout the world since 1999. Accept no substitute or replica.

For more information about our complete product line, or to place an order please call: **800-792-2222 or 914-592-2323** RxVitamins.com

formulated by **ROBERT J. SILVER, DVM, MS, CVA**





>>> For dogs showing signs of fear, try getting down on their level and approaching them from the side, remaining parallel with them. Never face them head on or move over the top of them. You can perform your entire physical examination from this position.

The four Fs of stress in pets

Your veterinary patients have several responses to extreme stress, but no matter which way they respond, their health may be in danger.

A little stress is natural and vital for getting through the ups and downs of life. But too much stress—whether in terms of quantity or quality? Not natural and not good for you. Now imagine your veterinary patients, who often have little control over what’s happening around them. And what’s happening around them may make them anxious or scared. At some point, something’s gotta give, and that may be the pet’s health.

The effects of too much stress

“When stress is intense, recurrent or chronic, then it starts to affect health,” says veterinary behaviorist Gary Landsberg, DVM, DACVB, of

North Toronto Veterinary Behaviour Specialty Clinic in Thornhill, Ontario. How? Immune function can be compromised, meaning pets can’t fight off infection as efficiently as normal and wound healing can be delayed. Bladder health can be affected, especially in cats, which are prone to interstitial cystitis. Latent respiratory disease can come to the surface, particularly in pets in shelters.

But there’s more! “Dermatologic diseases, gastrointestinal problems, even life span can be affected by chronic ongoing stress,” says Landsberg.

Signs of stress in pets

When pets are stressed, just like us, they release noradrenaline, adrenaline

and cortisol. The result is the famed fight-or-flight response. In reality, there are four responses you might see in pets, says Landsberg—fight, flight, fidget or freeze.

Fight. This is active stress or active fear. The pet may become aggressive to remove the threat in the situation.

Flight. Pets may try to flee the situation. You’ll see signs of avoidance, hiding or a lower body posture.

Fidget. This is a conflict situation—the pet isn’t sure how to react to the situation. You’ll see lip licking, paw raising and other signs of fear.

Freeze. Pets may stay motionless while whatever is happening around them plays out, but what’s going on inside is a different story. [dvm360](#)

Ultrasound, CT key to revealing the mystery behind a dog's sore left side

A canine named Cash is back in the hunt thanks to advanced imaging.

You know this type of case—an older dog that just isn't acting like himself. The particulars in this one: Cash, a 9-year-old hunting dog, had a decreased appetite, was lagging behind on walks and showed discomfort on his left side. Radiographs taken by his veterinarian at VCA Chanhassen Animal Hospital in Chanhassen, Minnesota, revealed nothing. How to help this dog named for the inimitable Johnny Cash?

Cash was referred to BluePearl in Eden Prairie, Minnesota, where an advanced imaging series brought the culprit to the surface. An ultrasonographic examination revealed an enlargement of Cash's left kidney along with fluid buildup in the organ. On to a computed tomography (CT) scan, which revealed a wooden skewer lodged in the stomach—Cash had likely swallowed it accidentally at a family gathering. The radiographs obtained by the referring veterinarian didn't help in this case since wood is typically radiolucent.

The extent of the damage? The skewer had punctured the intestine, had blocked the left kidney and was poking out of Cash's chest, just not through the skin.

Surgery performed at BluePearl to remove the foreign body, repair the intestine and drain the fluid was successful, and Cash is ready to go back on the hunt after recovery. [dvm360](#)



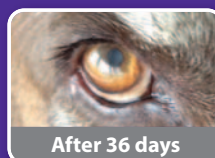
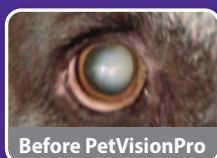
>>> Cash, like the famous singer he was named for (above), was singing the blues after a food indiscretion at a family gathering. Here he is postoperation and, at left, the offending skewer.

PHOTOS COURTESY OF BLUEPEARL

THE IMPORTANT THINGS IN LIFE



SHOULD BE CLEAR



PetVisionPro®
Can enhance eye health without surgery.

For millions of dogs and cats, the world is a blur. PetVisionPro® gives you a simple, economical way to reduce lens opacity and manage eye health in your patients. Offer your patients a management option before a referral.

PetVisionPro:

- Improves lens clarity in as little as 36 days*
- Maintains eye health for up to six months*
- Costs less than invasive surgery

And you will help your patients see their world again.

For a limited time, PetVisionPro is on promotion through December:

Buy 2 - Get 1 FREE.

For more information on trying PetVisionPro, contact your distributor representative to place an order.

800.874.9764 • prnpharmaceutical.com



* Data on file. PRN® is a registered trademark of Pegasus Laboratories, Inc. PetVisionPro® is a registered trademark of ADER and is used under license. 09/16 04505

A quick guide to gastric acid suppression in dogs and cats

How you can counteract the corrosive action of elevated gastric acid in your veterinary patients and when preventive use is indicated.

By Mindy Valcarcel, Medicine Channel Director

The same drugs you may reach for yourself to relieve the gastric effects of too much stress

can also be used in your veterinary patients. Here's some guidance on acid suppressant usage presented by Katie Tolbert, DVM, PhD, DACVIM, an assistant professor at the University

of Tennessee's College of Veterinary Medicine, during a recent CVC.

First, skip the antacids, which aren't as effective as decreasing gastric acid for a prolonged period. Instead go for acid suppressants.

Two types are generally used in veterinary patients:

- > Proton-pump inhibitors (PPIs) such as omeprazole, pantoprazole and esomeprazole.
- > Histamine type-2 receptor antagonists (H2RAs) such as famotidine and ranitidine.

Administration advice

- > PPIs are most effective when taken before a meal. Tolbert recommends giving them 30 minutes before breakfast.
- > H2RAs can be

taken with or without food.

- > Patients may become tolerant of an H2RA's effects after several days of receiving the drug.
- > Don't combine PPIs and H2RAs if you're looking to reduce acid, says Tolbert. Even though they may take a day or two to reach full effect, PPIs are just as effective as H2RA on day 1. However, in cases of nocturnal acid reflux, you can use the two drug types together (PPIs in the morning and H2RAs in night).

Prophylactic pointers

One big question: Should acid suppressants be given to patients considered at risk for gastrointestinal ulcers that might need transient therapy? Let's look at several scenarios:

1. Perioperative gastroesophageal reflux: Tolbert says this condition is common in dogs (10 to 55 percent), a little less so in cats (2 to 12 percent). One study showed that 30 percent of gastrointestinally healthy dogs undergoing orthopedic surgery had perioperative reflux.¹ In that study, the dogs benefitted from esomeprazole plus cisapride.

2. Kidney disease: Veterinarians often prescribe famotidine in patients with kidney disease, but Tolbert questions if they should be. Studies have shown no evidence of mucosal erosion or ulceration in patients with chronic kidney disease.² And these patients are already receiving plenty of drugs, so why add to the burden? On top of this, PPI administration in people has been associated with a higher risk of kidney disease.³ Overall, further study is needed to define utility in patients with renal issues.

3. Liver disease: Although liver disease is one of the most common factors predisposing dogs to GI ulcers, Tolbert says there are so many other factors involved in ulcer development that acid suppressors may not be efficacious in these patients. In fact, a recent study shows that dogs with portosystemic shunts had significantly lower serum gastrin than healthy dogs.⁴ But Tolbert says the study did not look into whether or not these dogs had ulcers. Her best plan of action? Reserve PPI use for patients with evidence of GI bleeding such as melena, iron-deficiency anemia, and regenerative anemia in the absence of hemolysis. One important note: Avoid cimetidine, says Tolbert, as it has been associated with acute liver injury in people and is not an effective acid suppressant in dogs.

4. Pancreatitis: The effects of PPIs in people have been mixed—some studies have shown that PPIs may cause pancreatitis while others say they help reduce inflammation associated with it—so there is no definitive answer here. If a patient isn't having persistent vomiting, there's no need to administer a gastric acid suppressant, says Tolbert. [dvm360](#)

References

1. Zacuto AC, Marks SL, Osborn J, et al. The influence of esomeprazole and cisapride on gastroesophageal reflux during anesthesia in dogs. *J Vet Intern Med* 2012;26:518-525.
2. McLeland SM, Lunn KF, Duncan CG, et al. Relationship among serum creatinine, serum gastrin, calcium-phosphorus product, and uremic gastropathy in cats with chronic kidney disease. *J Vet Intern Med* 2014;28:827-837.
3. Lazarus B, Chen Y, Wilson FP, et al. Proton pump inhibitor use and the risk of chronic kidney disease. *JAMA Intern Med* 2016;176:238-246.
4. Mazaki-Tovi M, Segev G, Yas-Natan E, et al. Serum gastrin concentrations in dogs with liver disorders. *Vet Rec* 2012;171:19.

EQUINE | Surgery



>>> Rood & Riddle Equine Hospital in Saratoga is a satellite facility of the main location in Lexington, Kentucky.

Rood & Riddle Saratoga: Quick access, excellent care

Taking care of horses quickly is a prime priority of these dedicated equine veterinarians and staff in Upstate New York. *By Ed Kane, PhD*

Rood & Riddle Equine Hospital, based originally in Lexington, Kentucky, opened its first satellite practice in September 2013 in Saratoga Springs, New York. At the time of purchase the main building was approximately 3,700 square feet and housed one surgical suite, two recovery stalls, an area for treating and evaluating horses, office space and storage. Since that time the practice, Rood & Riddle Equine Hospital in Saratoga, has added on more than 8,000 square feet while remodeling the existing building. The grand opening was in July of this year.

The addition included a new state-of-the-art surgical facility, an additional barn with housing for nuclear

scintigraphy, a radiology suite with a large ceiling-mounted generator and high-definition wireless digital plates, a laboratory and additional office space.

The practice is a full-service equine



Dr. Travis Tull



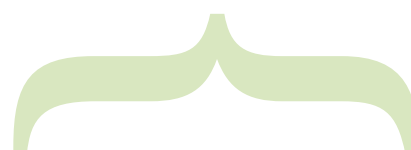
Carrie Agne

hospital with 24-hour care and staffing, as well as ambulatory and podiatry divisions. It is located just off the backstretch of Saratoga Race Course, minutes from downtown in the heart of the Upstate New York horse country.

At Rood & Riddle Equine Hospital Saratoga, doctors do about 30 to 35 surgeries per month while offering emergency, critical care and internal medicine services. Not only do

they treat thoroughbred racehorses but also standardbred racing horses, sport horses, western performance horses and other pleasure horses vanned in from the surrounding community.

The ambulatory division, headed by shareholder Scott Ahlschwede, DVM, has five full-time veterinarians and a veterinary podiatrist. Travis Tull, DVM, DACVS, is staff surgeon and remains at the hospital year-round while shareholder and surgeon Brett Woodie, DVM, MS, DACVS, travels back and forth from Lexington and manages hospital operations. Carrie Agne, LVT, ATSAVN, is the head veterinary technician, overseeing the nursing staff and assisting Tull during equine treatments and surgeries.



INTERNAL MEDICINE **E6**

15 racehorses test positive for equine piroplasmosis in Wyoming

EQUINE LIFE **E8**

11 things you love about equine medicine

dvm360.com/equine

Equine veterinary news, medicine and business information

Flunazine® Equine Paste
(flunixin meglumine)

SYRINGE CONTAINS FLUNIXIN MEGLUMINE EQUIVALENT TO 1500 mg FLUNIXIN
FOR ORAL USE IN HORSES ONLY

ANADA 200-581, Approved by FDA

NOT FOR USE IN HUMANS
KEEP OUT OF REACH OF CHILDREN

WARNING:
Do not use in horses intended for human consumption.

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

INDICATIONS:
For the alleviation of inflammation and pain associated with musculoskeletal disorders in the horse.

ACTIVITY:
Flunixin meglumine is a potent, nonnarcotic, nonsteroidal, analgesic agent with anti-inflammatory and antipyretic activity. It is significantly more potent than pentazocine, meperidine, and codeine as an analgesic in the rat yeast paw test. Oral studies in the horse show onset of flunixin activity occurs within 2 hours of administration. Peak response occurs between 12 and 16 hours and duration of activity is 24 to 36 hours.

CONTRAINDICATIONS:
There are no known contraindications to this drug when used as directed.

PRECAUTIONS:
The effect of flunixin meglumine on pregnancy has not been determined. Studies to date show there is no detrimental effect on stallion spermatogenesis with or following the recommended dose of flunixin meglumine.

SIDE EFFECTS:
During field studies with flunixin meglumine, no significant side effects were reported.

DOSAGE AND ADMINISTRATION:
The recommended dose of flunixin meglumine is 0.5 mg per lb of body weight once daily. The Flunazine® Equine Paste syringe, calibrated in twelve 250-lb weight increments, delivers 125 mg of flunixin for each 250 lbs (see dosage table). One syringe will treat a 1000-lb horse once daily for 3 days, or three 1000-lb horses one time.

Syringe Mark*	Horse Weight (lbs)	Flunazine® Equine Paste Delivered (g)	mg Flunixin Delivered
0	--	--	--
250	250	2.5	125
500	500	5.0	250
750	750	7.5	375
1000	1000	10.0	500

* Use dial edge nearest syringe barrel to mark dose.

The paste is orally administered by inserting the nozzle of the syringe through the interdental space, and depositing the required amount of paste on the back of the tongue by depressing the plunger.

Treatment may be given initially by intravenous or intramuscular injection of Flunazine Injectable Solution, followed by Flunazine® Equine Paste on Days 2 to 5. Flunixin meglumine treatment should not exceed 5 consecutive days.

TOXICITY:
No toxic effects were observed in rats given oral flunixin meglumine 2 mg/kg per day for 42 days. Higher doses produced ulceration of the gastrointestinal tract. The emetic dose in dogs is between 150 and 250 mg/kg. Flunixin was well tolerated in monkeys dosed daily with 4 mg/kg for 56 days. No adverse effects occurred in horses dosed orally with 1.0 or 1.5 mg/lb for 5 consecutive days.

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

APPLE FLAVORED

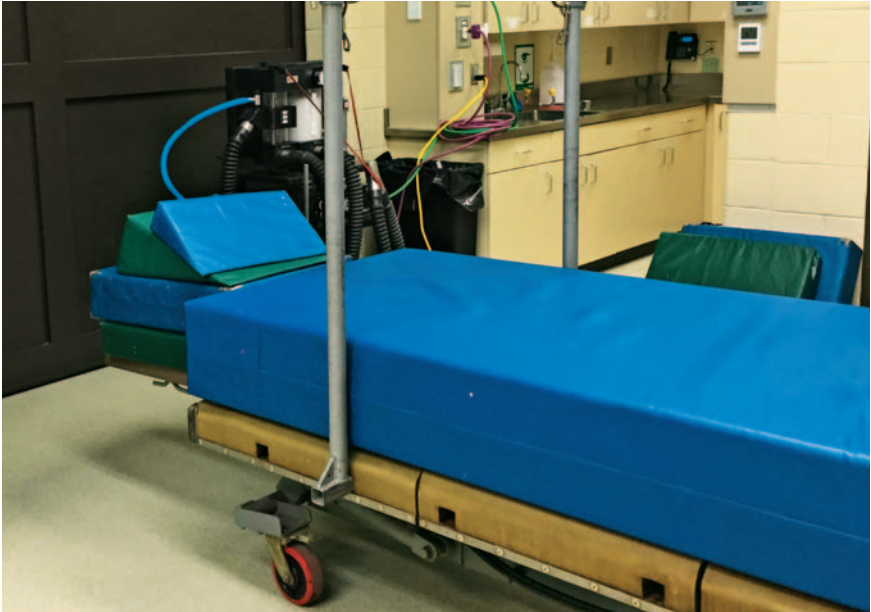
HOW SUPPLIED:
Contains: 12 - Flunazine® (flunixin meglumine) Equine Paste Syringes 30 g each (syringe contains flunixin meglumine equivalent to 1500 mg flunixin).

To obtain an MSDS or for assistance, contact Bimeda, Inc. at 1-888-524-6332.

>>> **Right:** The radiology room at at Rood & Riddle Saratoga, which includes nuclear scintigraphy capabilities.

>>> **Below:** The instrument room at Rood & Riddle Equine Hospital in Saratoga.

>>> **Bottom:** The main treatment room.



Facility operations

The main treatment area, which consists of two rooms with stocks and a host of diagnostic modalities, is designed for basic treatments and procedures and diagnostic workups. This is where “we do endoscopy, standing procedures, ultrasound, lameness workups and bandage changes,” Agne says. The room closest to the surgery suite is primarily used for critical patients that proceed directly to surgery after a brief triage to assess such conditions as dystocia or severe colic.

Adjacent to the two treatment rooms are three induction/recovery stalls that open into the surgical preparation area. “The first induction stall is where most of our surgeries are placed under anesthesia,” Agne says. The horses have their mouth rinsed of debris and are given sedation followed by intravenous anesthetic drugs. “We normally have four to five people—one on the head; one on the shoulder; one or two on the midsection and one on the hind end—to help drop the horse against the wall,” Agne says. This is a very controlled procedure. “From that point, the patients are gently rolled over onto their side, an endotracheal tube is placed, and we put the shackles typically around their fetlocks. Then we hoist them up onto the surgical table.

“The surgical table is pre-prepared so it is at the proper recumbency we have put the horse in,” Agne continues. Because horses are sensitive to low blood pressure due to their size and large muscle volume, they are placed on a ventilator and monitored continuously during the procedure with electrocardiogram, direct blood pressure readings and blood gas evaluation.

The transfer area opens into two surgical suites. One is dedicated to surgeries with a higher likelihood of contamination (such as colics, lacerations and abscesses), and the other is designed for surgeries with little such risk (such as orthopedic and elective procedures). “Each room has an air curtain ventilation system; two overhead LED surgery lights; oxygen, nitrogen and suction; a hoist for holding legs up or fluids for critical cases; and a hose system nearby to assist cleanup,” Agne says.

A temperature-controlled four-stall barn is located just off the back of the facility. An adjacent room in the barn



>>> **Above:** An induction stall near surgery. **Below:** Radiology recovery. **Bottom:** The equipment room.



PROBLEM: Pain

SOLUTION:
Flunazine®
(flunixin meglumine)



Flunazine®
(flunixin meglumine)
Equine Paste

- Safe and effective pain management in horses
- Apple flavor for easy administration
- Convenient and precise dosing
- Trusted and cost effective Bimeda Generic brand of Banamine®

For more information, contact your Bimeda sales representative or Bimeda Customer Service at 888-524-6332 and Info@BimedaUS.com. For complete product information and label copy, visit www.BimedaUS.com

Federal law restricts this drug to use by or on the order of a licensed veterinarian. There are no known contraindications to this drug when used as directed. The effect of flunixin on pregnancy has not been determined. Studies to date show there is no detrimental effect on stallion spermatogenesis with or following the recommended dose of flunixin meglumine. For oral use in horses only. Do not use in horses intended for human consumption.

© Copyright 2016 Bimeda®, Flunazine is a registered trademark of Bimeda, Inc. Banamine is a registered trademark of Merck.





>>> A colic surgery being performed at Rood & Riddle Saratoga.



>>> Lavage of a horse's hoof after the patient stepped on a nail.



>>> Hoof radiograph showing a sterile probe into the wound.

houses the new nuclear scintigraphy machine. Nuclear scintigraphy uses small amounts of radioactive material to diagnose and assess the severity of a variety of conditions, including fractures, bone injury and soft tissue injuries. The bone scan room houses a large gamma camera with a computer system directly attached.

“The horses are sedated and the isotope injected intravenously,” Tull says. “One person will restrain the horse while another moves the gamma camera around the horse to obtain specific projections. The isotope is bound to a molecule that preferentially binds to areas of increased bone turnover, enabling the identification of areas of bone inflammation often prior to radiographic changes.”

Surgery: A foal is admitted for colic assessment and treatment

In emergent situations time is a critical factor not only for survival but also in how quickly a horse recovers. For instance, a foal was recently seen in the field by one of the Rood & Riddle ambulatory veterinarians for colic. The history was sudden onset of abdominal pain with rolling and kicking at the abdomen. After a quick evaluation and several series of analgesics and sedation, the foal was referred for evaluation at the hospital.

“They got the foal to our facility within about 40 minutes,” Tull says. “The foal was quite painful when it arrived. Rapid evaluation and triage was performed and, based on the history of significant abdominal pain, with multiple loops of distended small intestine apparent on ultrasound, exploratory laparotomy was recommended.

“Exploratory surgery demonstrated a small intestinal volvulus, which occurs when the small intestine twists around its mesentery, the tissue that connects it to the internal body wall and, more importantly, carries the blood supply,” Tull continues. “The small intestine was carefully untangled to correct the volvulus. The contents of the small intestine were then pushed back into the cecum where there was room for

the ingesta to pass on through the GI tract. After we were satisfied with the success of that portion of the procedure, we continued exploring the GI tract and completely lavaged it with several liters of sterile fluid. The abdomen was closed routinely.”

Luckily in this particular patient there was no compromised small intestine from loss of blood supply requiring removal of intestine. “The major reason we were able to obtain a good outcome in this particular foal was how rapidly the initial colic signs were identified, and how quickly the referring veterinarian sent the foal in to the hospital,” Tull says. “From start of colic signs to surgical intervention was less than two hours. That can make a big difference.” The foal recovered well and was home again five days after surgery.

Additional procedures highlight Rood & Riddle's important work

“It's not just colic where time is an important factor in outcome,” Tull continues. “Recently during training a galloping horse pulled up abruptly and was placed on the ambulance and driven directly to the hospital. After the horse was cooled down and a given a good physical examination, ultrasound was utilized to identify a pelvic fracture, and standing radiographs of the horse's pelvis were taken with the high-definition wireless digital radiography system confirming the diagnosis.”

In certain cases unstable pelvic fractures can lacerate major blood vessels in the abdomen, leading to a major hemorrhagic crisis. Previously, radiographing the pelvis in adult horses would have required general anesthesia. But the hospital's current system enables the doctors to obtain standing diagnostic images. The proximity of the practice and the ability to image the pelvis standing allowed a rapid diagnosis and prevented the horse from having to be transported a long distance with an unstable fracture.

Aside from the breeding population and racing component of Saratoga Springs there is a large population of pleasure horses that benefit from a centrally located referral hospital. “Late one afternoon

recently a family was bringing their 20-year-old retired pleasure horse in from his pasture and noticed he was limping,” notes Tull. “Further inspection demonstrated a hole in his hoof in the region of the frog, and a nail in a board nearby with blood on it. They got him on the trailer and brought him in to the hospital. The wound was cleaned a radiograph taken with a sterile probe in place. The nail had penetrated through the frog and entered the navicular bursa and the distal interphalangeal joint, important synovial structures within the hoof. The horse was taken to surgery that night, the nail tract cleaned and debrided, and the navicular bursa and distal interphalangeal joint flushed copiously with sterile fluid.”

A regional limb perfusion, a procedure where a tourniquet is placed above the hoof and antibiotics placed within a vessel resulting in a high antibiotic concentration in the region, was also performed during the procedure. “The goal when a synovial structure is penetrated is to remove contaminants and bacteria to prevent a life-threatening infection from occurring,” Tull says. “The sooner wounds like this are treated appropriately, the more likely the horse will avoid infection and chronic lameness. This patient received intravenous antibiotics, further regional limb perfusions performed standing, and a special shoe with a treatment plate custom-made by the practice podiatrist. He made a full recovery and is sound and living the good life of retirement.”

Proximity makes Rood & Riddle essential to Saratoga Race Course, surrounding community

Regardless of vocation, horses in the upstate New York community now have access to an equine hospital with advanced diagnostic capabilities and 24-hour staffing. The veterinarians and staff have extensive training and are passionate about equine health.

“Proximity to rapid treatment makes a big difference in survival and recovery of horses in emergent situations,” Tull says. The location of Rood & Riddle Equine Hospital in Saratoga Springs in relation to the Saratoga Race Course and surrounding horse community makes it essential for

rapid, safe, efficient and excellent treatment of horses, be they in need of emergency treatment, advanced diagnostics, medical care or lifesaving surgery. Being able to walk, easily van, or get horses to the facility quickly has already helped save equine lives and will assist numerous horses in the years to come. **dvm360**

Ed Kane, PhD, a regular contributor to dvm360 magazine, is a researcher and consultant in animal nutrition.

He is an author and editor on the topics of nutrition, physiology and veterinary medicine with a background in horses, pets and livestock. Kane is based in Seattle, Washington.



SOME THINGS PROMISE MORE THAN THEY DELIVER.

Big one-shot combination vaccines may save time. But it can be at the expense of the horse's immune response. A study showed that vaccinating with WEST NILE-INNOVATOR[®] and FLUVAC INNOVATOR[®] generated *four times* the immune response to West Nile virus than that produced by a big one-shot combination vaccine.¹ For an increased immune response, give WEST NILE-INNOVATOR and FLUVAC INNOVATOR. After all, what you could save is a lot more important than time. Visit FourTimesMore.com.

¹ Cortese V, Hankins K, Holland R, Syvrud K. Serologic responses of West Nile virus seronegative mature horses to West Nile virus vaccines. *J Equine Vet Sci*. 2013;33:1101-1105.
All trademarks are the property of Zoetis Services LLC or a related company or a licensor unless otherwise noted.
© 2016 Zoetis Services LLC. All rights reserved. GEQ-00180



15 racehorses test positive for equine piroplasmosis

USDA and APHIS determine human use of contaminated equipment or product is the main risk of transmission of this parasitic disease.

More than a dozen Wyoming racehorses were found to be infected with equine piroplasmosis (EP) in late August, according to a Wyoming Livestock Board press release.

The United States Department of Agriculture (USDA) Animal and Plant Health Inspection Service (APHIS) notified Wyoming State Veterinarian Jim Logan, DVM, Aug. 25 that a California racehorse of Wyoming origin had tested positive for EP.

Logan then partnered with the agency and with the Wyoming Pari-Mutuel Commission to establish quarantine and to conduct testing on horses associated with the infected animal. According to the release, 13 additional horses belonging to one owner in Wyoming tested positive, as well as one horse belonging to an owner from Utah.

EP is caused by one of two protozoan parasites—*Theileria equi* or *Babesia caballi*—and can spread to horses through ticks or through contaminated needles, syringes, surgical equipment or products. Clinical signs include fever, reduced appetite, malaise and increased pulse rate and respiration, but horses can carry the disease without showing signs.

The infected Wyoming horses remained under quarantine while Logan and staff worked with the owner to determine their futures. Infected horses can undergo a time-consuming treatment while quarantined, but the high cost must be covered by the owner. Other options, according to the release, include permanent quarantine or euthanasia.

Because Title 9 of the Code of Federal Regulations does not prohibit intra-state movement of animals

exposed to EP, the Wyoming Livestock Board allowed the transport of the negatively tested animals to other Wyoming racetracks.

“We are not concerned about horse-to-horse transmission of this disease,” Logan said in the release. “The transmission risk of concern is from human (trainer/owner) use of contaminated equipment or product among horses.”

The commission issued an order requiring all horses to have a negative *Theileria equi* cELISA test within 12 months of entering a sanctioned racetrack in Wyoming.

Logan and USDA APHIS worked with the Wyoming State Veterinary Laboratory to ready it for EP testing. Veterinarians who suspect EP can also send samples to Colorado State University Laboratory, National Veterinary Services Laboratories or other approved laboratories. [dvm360](#)

It's all about YOU & the work you do!



SAN DIEGO

SD

December 8-11, 2016

CVC is the **smart**, **easy**, and **affordable** choice for exceptional veterinary continuing education. Your CVC San Diego registration includes:

- Educational sessions led by the profession's most highly regarded speakers!
- Hands-on labs and unique learning opportunities.
- Collaboration with experts and peers.
- Locations that are close to home or desirable vacation destinations.
- An active, solutions-oriented Exhibit Hall.

With CVC, exceptional veterinary continuing education is within reach.

Register at www.TheCVC.com!

800.255.6864, ext. 6 ■ TheCVC.com ■ cvc@advanstar.com



smart**easy****affordable**
veterinary continuing education



11 things you love about equine medicine



As an equine vet (or technician), you've been covered in so much sweat and dirt it forms a paste on your skin. You've wondered, "What's that smell?" Then realized it was you. And you've borne the burden of delivering the news that this horse the owner was counting on still isn't pregnant. Here are a few reasons to celebrate your unique work life.

1 Relishing that moment when you realize the colicky horse just might make it.

2 Knowing you've got the best stories at any family gathering about the times you narrowly missed getting bitten (or kicked)!

3 That first smell of the stable and the curious faces poking out of stalls that send your adrenaline kicking. This is HOME, and there's no place you'd rather be.

4 Loving the Arabians ...



5 And the Shetlands too!

6 The feeling of relief after you float a horse's mouth, knowing you got rid of those sharp edges that HURT. (And your gratitude to your technician who read the schedule at the beginning of the day and prepacked your truck with all of the supplies you'll need.)

7 Knowing you learned to braid ... only because you wanted to braid your horse's mane.

8 Watching that broken leg heal (finally!)

9 Knowing picking out a horse's hooves is the ... Best. Meditation. Ever.

10 The sweet barn kittens (and pooches) who always seem to hang around for that extra pet.

11 The tickle of the horse's lips when you sneak him that extra carrot.

McLoven the Stud Muffin, Agent Jack Meower chosen as wackiest pet names of 2016

Nationwide looks through insured-pet database to find unique monikers.

The results of Nationwide's annual wackiest dog and cat name contest are in. The winners? McLoven the Stud Muffin for dogs and Agent Jack Meower for cats. But



>>> Agent Jack Meower, winner of the wackiest cat name in a contest by Nationwide pet insurance.

these winners had some serious competition! Here are the top 10 lists for both dogs and cats.

Wackiest dog names

1. McLoven the Stud Muffin
2. Kanye Westie
3. Angus Von Wigglebottom
4. SuperFunCoconutDog
5. Optimus Prime Rib
6. Maximus Waffles
7. ChaChi Big Foot
8. Scrappin Scruffy Macdoogle of the Highland Macdoogles
9. Lieutenant Colonel Be Back Soon
10. Aggie Von Schwaggie

Wackiest cat names

1. Agent Jack Meower
2. Shakespurr

3. Meowmadeus
4. Macaroni Bob
5. Sir Pickles Pennybottom
6. Princess Poopy Paws
7. Butch Catsidy
8. Sharkbait Hoo Ha Ha
9. Ziggy Snowdust
10. Enzo Asparagus Santa **dvm360**



More online

To read about how these pets got their crazy names, and to see a gallery of their pictures, visit:
dvm360.com/wackydognames
dvm360.com/wackycatnames

IN BRIEF | News

HSVMA forms Access to Veterinary Care Coalition

The Humane Society Veterinary Medical Association (HSVMA) has formed the Access to Veterinary Care Coalition. According to a release from the association, the coalition aims to reduce barriers to veterinary care access and promote communication among stakeholders. It will bring together veterinary, animal welfare and social services professionals, including representatives of for-profit and nonprofit veterinary service providers.

Families at or below the national poverty line have an estimated 23 million pets that live with them, and millions more pets live in financially struggling middle-class households that cannot afford veterinary care, according to the HSVMA. For these pet owners, there

are limited options for treatment of more serious injuries or illnesses.

"As caring and compassionate veterinarians, I believe it is our duty to both better understand the reasons behind the immense numbers of pets currently not receiving adequate veterinary care and to then endeavor to find solutions to the problem," says Ted Cohn, DVM, a member of the coalition, former president of the American Veterinary Medical Association (AVMA), in the release.

No link found between antibiotic use in farm animals and resistance in people

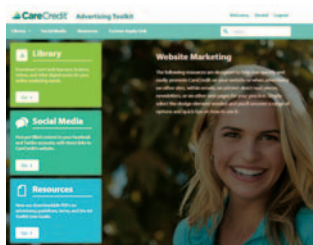
A team of scientists at the Medical University of South Carolina (MUSC) and the Charleston VA Medical Center Research

Service recently reviewed published literature for evidence of a relationship between antibiotic use in agricultural animals and drug-resistant foodborne *Campylobacter* infections in people, states a news release from MUSC.

Conducted by veterinary and nutrition scientists and an infectious disease physician, the study reviewed 195 published articles. Animals included in the reviewed studies were chicken, turkeys, pigs, beef cattle and dairy cows.

While the overall prevalence of *Campylobacter* and drug resistance found in the systematic review aligns with reports from the National Antimicrobial Resistance Monitoring System (NARMS), the research team found no conclusive evidence of a definitive link between use of antibiotics in food animals and emergence of drug-resistant *Campylobacter*, according to the release.

As the controversy surrounding the use of antibiotics in food animals continues, so does the need for research, officials say. **dvm360**



CareCredit Promotional materials for veterinary practices

CareCredit, a provider of healthcare financing, has created a new online advertising toolkit. It features professionally designed, customizable assets that can easily be added to a veterinary practice website to promote awareness of CareCredit financing options. The toolkit features an enhanced user experience, new digital banners, buttons and logos, and a payment calculator. It contains additional options to help select colors, sizes and images, a custom apply link, which allows clients to apply directly for CareCredit from the provider's website, and easier-to-use resources so everyone in the practice can use the toolkit, not just web professionals.

*For fastest response visit
carecredit.com/advertisingtoolkit*



Animal Health Technologies Anxiety relief system

Animal Health Technologies has introduced its new wearable solution to canine anxiety, the Calmz Anxiety Relief System. The system is a noninvasive treatment option for dogs that suffer from various types of behavioral anxiety. It includes an adjustable vest that cradles the device over specific acupressure points on a dog's spine. Its NeuroSync technology, which creates and delivers calming frequencies that the dog can hear and feel, has been clinically tested by animal behaviorists and has demonstrated statistically significant reduction in negative behavior associated with canine anxiety.

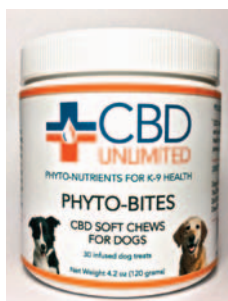
*For fastest response visit
calmz.com/professionals*



Boehringer Ingelheim Vetmedica Low-dose feline vaccine

Boehringer Ingelheim Vetmedica Inc. has launched Ultra Hybrid FVRCP, a new non-adjuvanted 0.5-ml feline core vaccine. It is indicated to aid in prevention of disease caused by feline herpesvirus (viral rhinotracheitis), calicivirus infection and panleukopenia (distemper) in cats and kittens 8 weeks and older. It contains a dual-strain calicivirus shown to provide broad-spectrum cross-neutralization of field isolates of feline calicivirus, a medically significant disease. The vaccine is made using PureFil Technology, designed to decrease vaccine reactions by reducing extraneous proteins and cellular debris.

*For fastest response visit
ultravaccines.com*



Endexx Corp. Cannabidiol chews

Endexx Corp., a provider of phytonutrient-based food and nutritional products, has launched Phyto-Bites cannabidiol (CBD)-infused soft chews for dogs. The treats are formulated to promote health and support the reduction of separation anxiety, pain and inflammation. The soft chews were developed using a proprietary formula and are manufactured in an FDA-approved facility. Phyto-Bites are nutritious and support overall dog health. The soft chews are available in packages of 30 and 60 chews and have a two-year shelf life.

For fastest response visit cbdunlimited.com/cbd-soft-chews-for-dogs



Torigen Pharmaceuticals Immunotherapy product

Torigen Pharmaceuticals, a biotherapeutic company focused on treating cancer in animals, has launched Vetivax. Vetivax uses a patient's own tumor cells to create a personalized treatment, which educates the patient's immune system to recognize the tumor as foreign and attack the cancer. Developed at the University of Notre Dame with more than 10 years of supporting research, Vetivax is a whole cell tissue immunotherapy that allows for a variety of tumor antigens to be presented to the immune system. This treatment can be used for multiple tumor types.

For fastest response visit vetivax.com



Merial Equine anti-inflammatory

Equioxx (firocoxib), a coxib nonsteroidal anti-inflammatory drug, has been approved in tablet form by the FDA. The tablet form of the once-daily treatment to control joint pain and inflammation associated with equine osteoarthritis will be available in the market in early fall by prescription only. Equioxx is now available in three formulations depending on the specific need of the horse. Injection is best to initiate therapy, while the paste is a convenient form for accurate dosing, especially in small horses and performance horses. And now the tablets are easy to administer with or without feed.

For fastest response visit equioxx.com



Dechra Veterinary Products Dental health chews

Dechra Veterinary Products announces four sizes of PhycoDent Rawhide Chews available for purchase through veterinary distributors. PhycoDent Chews are designed not only for pets' dental health but also to support joint health. The chewing action helps reduce plaque buildup, while sodium hexametaphosphate, a sequestering agent, helps reduce tartar (calculus). Phycocyanin, a natural antioxidant, helps support joint health.

For fastest response visit dechra-us.com



Dechra Veterinary Products Generic amoxicillin-clavulanate tablets

Dechra Veterinary Products has received FDA-CVM approval for Amoxicillin Trihydrate and Clavulanate Potassium Tablets. This approval is the first registration Dechra has achieved through Putney's development pipeline since it acquired the U.S.-based business earlier this year. The product will initially be launched under Putney branding; however, in 2017, the drug will be sold under a Dechra trade name.

For fastest response visit dechra-us.com



Advanced PT Devices iLux Light Vet

iLux Light Vet is a high-power Class IV laser therapy unit for veterinary medicine. It features a wide variety of powers and wavelengths to fit different practices' needs. Options include 5 watts, 7 watts, 10 watts and 15 watts of average continuous wave power, as well as 1 wavelength, 2 wavelengths or 3 wavelengths in a single device. The unit also has a functional finger switch handpiece with a magnetic release technology system for different laser therapy and soft tissue surgery applications. The unit features seven modes, including continuous wave, pulse, super pulse, burst and trigger point.

For fastest response visit pt-smart.com



AVMA PLIT Online claims portal

The AVMA PLIT's Action Center is an addition to its online portal with content and tools detailing what to do if AVMA members find themselves facing a malpractice claim or license complaint. The Action Center includes instructional videos, a step-by-step explanation of malpractice claims or licensing complaints, tips for communicating with clients, wellness information and testimonials. The Action Center helps veterinarians to take control by taking action. It can be accessed from the avmaplit.com homepage or at avmaplit.com/actioncenter.

For fastest response visit avmaplit.com/actioncenter



Merck Veterinary Manual Online CE courses

The Merck Veterinary Manual, a source of animal health information for veterinarians, veterinary students, veterinary technicians and other animal health professionals, is making its content available for use in continuing education opportunities offered by VetMedTeam. The reference covers the diagnosis, treatment, control and prevention of disorders and diseases in companion, production, exotic and laboratory animals. The first course will focus on mange and carries one non-interactive RACE credit for both technicians and veterinarians.

For fastest response visit vetmedteam.com/class.aspx?ci=324



Assisi Animal Health Therapeutic wrap

Assisi Animal Health accessories are designed to enhance treatment when using the Assisi Loop. The Assisi-Hero Loop-Aid was developed to assist in compliance with veterinarians' instructions, offer convenience for pet owners and allow mobility for the pet during treatments. The Torso Wrap is a lightweight, durable garment that the loop attaches to during treatment. The wrap is designed to stay on the pet for the duration of its daily treatments and has adjustable Velcro attachments for securing the loop in different areas of need. It comes in seven sizes, including one specifically for long-low breeds that suffer from back issues.

For fastest response visit assisianimalhealth.com



Zoetis Diabetes management application

Pet owners can now quickly and easily report a diabetic pet's blood glucose readings to their veterinarian using the PetDialog diabetes management app from Zoetis. The smartphone app features a timeline that displays a pet's daily activities such as walks, meals, treats and administered medications. It also serves as a way to record a pet's blood glucose levels obtained through the AlphaTRAK Blood Glucose Monitoring System. When pet owners register their AlphaTRAK 2 meter, they will be able to record and email the pet's blood glucose and insulin readings to their veterinarian for review. The veterinarian downloads the data and works directly with the pet owner to manage insulin therapy.

For fastest response visit alphatrakmeter.com



Purina Pro Plan Veterinary Diets Gastrointestinal therapeutic diet

Dogs with compromised fat absorption have two new dietary options: Purina Pro Plan Veterinary Diet's EN Gastroenteric Low Fat Canine Dry and Canned Formulas. Managing patients with compromised fat digestion can be tricky when dogs require a low-fat diet for their gastrointestinal health but must avoid weight loss. The new formula is low-fat yet it maintains a moderate caloric density and a high total digestibility to promote nutrient absorption. In addition, both new EN diets contain the prebiotic inulin, which nourishes beneficial bacterial in the GI tract, and vitamins A and E to support a healthy immune system.

For fastest response visit proplanveterinarydiets.com/products/en-gastroenteric-dog/



Midmark Animal Health Durable dental radiography sensor

Midmark Animal Health has introduced the VetPro OptiMax Digital Sensor System, offering veterinarians a durable and high-quality alternative to the sensors currently on the market. The unit has four times more resistance to bite damage and is available in two sizes to accommodate patient needs and exam requirements. The patented, complementary metal-oxide semiconductor (CMOS) technology is designed to deliver enhanced image quality, including soft-tissue visualization and crown and root definition while its rounded corners provide easier positioning in tight spaces for better capture of roots.

For fastest response visit midmarkanimalhealth.com



DENTAL PRODUCTS

Search for the company name you see in each of the ads in this section for **FREE INFORMATION!**

VetzLife

SUPERIOR HOLISTIC SOLUTIONS

Helps Eliminate
Plaque

1

Solve **4** Oral Problems
with One Bottle

2

Helps Remove
Tartar



4

Freshens
Breath

100%
Natural

3

Helps Reverse
Gum Disease

VetzLife Oral Care are the products more and more Veterinarians trust to remove plaque and control tartar in companion animals. With **VetzLife** Veterinarians are able to prescribe a professional strength solution that naturally softens and eliminates tartar, freshens bad breath and has even proven to reverse oral disease. It's the perfect alternative to dental scaling - especially when companion animals can't tolerate anesthesia, and for preventing plaque and tartar build up after dental treatments. And best of all, it's 100% natural, 100% safe, 100% guaranteed and easy to use.

SEE OUR FULL LINE OF
EXCITING NEW PRODUCTS

VetzLife
THE NATURAL, HOLISTIC
SOLUTION TO MANY OF YOUR
CLINICS NEEDS

FREE
CATALOG



Please email us for
FREE Samples, catalog and pricing:
info@vetzlife.com
Download catalog here: vetzlife.com/catalog

CONTACT YOUR FAVORITE DISTRIBUTOR SALES REP
FOR MORE INFORMATION AND PRICING:



Proudly made in the U.S.A | www.vetzlife.com | 888-453-4682



NEW
"Feline Oral Care Gel
for Stomatitis"



Visit us: CVC KANSAS Booth #1602
AHVMA COLOMBUS Booth #100
CVC SAN DIEGO Booth #236

CLEANING PRODUCTS & SUPPLIES



Eliminator

Odor Digester

Eliminate **urine**
& **fecal odors**
permanently!



Health
Technology
Professional Products Inc.
Animal Care Cleaning Solutions

To order or for more info
contact your distributor
www.htproducts.net



PATTERSON
VETERINARY

800.424.7536

CLEANING EQUIPMENT & SUPPLIES



The Best Care for Your Best Friend



Chances are, your laundry equipment isn't designed to handle contaminated vet clinic laundry. Continental washers and dryers are commercial-grade machines engineered for a superior clean. They're highly programmable, and automatically combine multiple baths and rinses with the right cleaning chemicals, mechanical action, water levels and water temperatures. Laundry gets clean and smells fresh!

Designed for the rigors of constant use, Continental washer and dryers are backed by a commercial-grade factory warranty!

- Go from 12 loads to 4 loads/day
- Reduce utility costs
- Ozone compatible
- Spend less time doing laundry



(800) 256-1073
www.continentalgirbau.com/vetclinics


Sell your product here

Veterinarians say they use **dvm360** to research product sales more than any other publication.

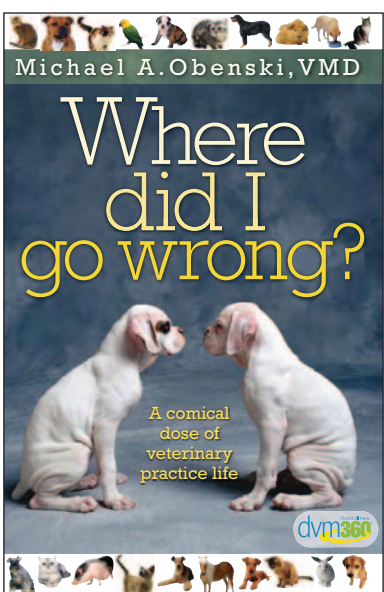
Call today to place your ad.

(800) 225-4569, ext. 2629





Missing **Dr. Obenski's** column already? We can help.



The maestro of mirth's legacy lives on

Michael Obenski, DVM may have retired from his column in dvm360 but you can still enjoy ten years of unbelievable-but-true stories from the examination room and beyond.

For you, for your practice—share this classic compilation of more than 130 columns with anyone who appreciates the lighter side of veterinary practice! (\$29.95, free US shipping.)

go to **industrymatter.com/obenski**
or call 1-800-598-6008

Search for the company name you see in each of the ads in this section for **FREE INFORMATION!**



VET.SCHICKBYSIRONA.COM

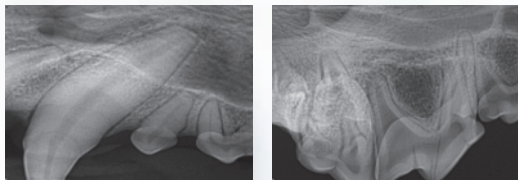


SEE MORE THAN WHAT'S ON THE SURFACE.



DIAGNOSE CONDITIONS BELOW THE GUM LINE WITH SCHICK 33

With more pet owners demanding high-quality veterinary dental care, it makes more sense than ever to add the Sirona Digital x-ray system with Schick 33 and HELIODENT^{PLUS} to your practice. Together these products provide an easy solution for high-resolution intraoral radiography and the best diagnostic capabilities. It's a new breed of digital diagnostics and a great companion for every practice. Contact your Patterson Veterinary rep or learn more at vet.schickbysirona.com




PATTERSON
VETERINARY

For more information:
Email VetSales@sirona.com
or call 877-SCHICKVET



The Dental Company

sirona.

Search for the company name you see in each of the ads in this section for **FREE INFORMATION!**

DENTAL EQUIPMENT

Leba III is on your side, tartar will tap out.



BLUEWATER BRIDGE, ON, CA & MI, USA
Photo by David J Sullivan

100% response in Double Blind Tests
See the results on www.lebalab.com



Cleans Teeth with the Ease of a Spray

The LebaLab difference:

Leba III stimulates the good flora in the saliva. The longer Leba III is used, the cleaner the teeth and the healthier the chemistry of the mouth becomes. Antibacterial products kill the good bacteria in the mouth leading to imbalance and repeated dental procedures.

Pets ingest dental products, they cannot rinse. They can become subject to the side effects of the components, that's why Leba III contains no Grapefruit Seed Extract, no chlorides or chemical agents.

Used by veterinarians since 1994.



TO ORDER, CALL 1.866.532.2522

Questions? Call 1.519.542.4236 | www.lebalab.com | tellus@lebalab.com

Search for the company name you see in each of the ads in this section for **FREE INFORMATION!**



MEDICAL EQUIPMENT



(800) 654-8073
WWW.TECHNIVET.COM

 **Proudly made in the U.S.A.**

\$2,980
MOBILE WET DENTAL / TREATMENT LIFT TABLE

\$2,505
MOBILE TREATMENT TABLE W/ SCALE

\$1,655
PNEUMATIC LIFT GURNEY

BATTERY OPERATED ELECTRIC LIFT
LIGHTWEIGHT

TOMS RIVER, NJ 08755

SURGICAL SUPPLIES

Save 40-50%
on Surgical Supplies
with eSutures



eSutures.com is a liquidator of Ethicon and Covidien sutures and endomechanicals, as well as Synthes screws, implants and instruments.

eSutures can offer your business:

- ☒ Name Brands, In Stock
- ☒ All Items Available by the Box or Individual Packet
- ☒ Low Prices
- ☒ No Contracts or Minimum Orders
- ☒ Same Day Shipping



Find out more at: eSutures.com
or call 888-416-2409

Use promo code: **DVM10** for \$10 off your order of \$50 or more.*

eSutures.com
The Surgical Superstore

*Promo code valid for (1) one use only. Offer expires 12/31/16.

MOBILE VETERINARY

La Boit *Specialty Vehicles Inc.*

"It's Nice To Be Important, But It's Important To Be Nice"



visit us on facebook
800-776-9984
www.laboit.com

PET ID PRODUCTS

Avid Saves
Visit: DemoPortal.AvidID.com

- ☒ Try out our DEMO PORTAL
- ☒ ENROLL TODAY!
- ☒ Earn Points for each chip registration
- ☒ Redeem for Free Friendships!

SPECIAL OFFER:
MiniTracker III
Universal Scanner
\$299.00
For first 1000 Sign-Ups

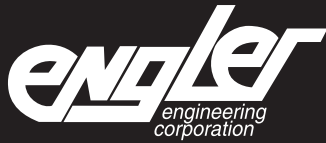
Speak to a Representative
ENROLL TODAY!
(800) 336-2843
Sales Ext 3

Get more product information online

Find it all here.
dvm360.com

Researching a purchase?
dvm360.com
offers hundreds more product listings.
Just visit dvm360.com/products

MEDICAL EQUIPMENT



VETERINARY DENTAL, ANESTHESIA & OXYGEN EQUIPMENT

Download all
product details,
brochures and
more from
our support
website at:
engler411.com

Wall Mount
included
Optional
Stand
Available



Mini Scale-Aire High Speed Dental Air Unit
Easily connects to a regulated
nitrogen tank or external compressor

All in one miniature air
unit Introductory Price
\$2350

Wall Mount included
Optional Stand
Available



Our Most Affordable High
Speed at only
\$1295

Drill-Aire High Speed Dental Air Unit
For Clinics in need of highspeed capability.
Includes a highspeed handpiece
and Air-Water Syringe

Wall Mount included
Optional Stand
Available



Very Affordable High
Speed at only
\$1695

Drill-Aire Plus High Speed Dental Air Unit
Includes a highspeed handpiece, low speed
Handpiece and Air-Water Syringe

SCALE-AIRE HIGH SPEED

Ultrasonic scaler / Highspeed /
Low speed / Air-Water syringe



Our Most Popular High
Speed for only
\$4275

Supply your whole clinic with Oxygen using our Infinite O2 Booster package or Generator. With one 5L Oxygen concentrator you can run 1 anesthesia machine.



SAVE MONEY \$\$\$ ON YOUR OXYGEN BILLS
Infinite Oxygen Booster

NEW
\$3495

The Booster with a 10L concentrator can
run 4 anesthesia machines or a combination
of anesthesia machines and/or ventilators

- Generate your own Oxygen
- Eliminate Oxygen Cylinders
- Very quiet (30 dB)
- Minimal Maintenance
- Durable for continuous operation
- Engler ADS 1000 / 2000 compatible
- Footprint 24H X 14W X 37L inches
- Delivers 50 PSI to your Piped in O2
- Requires O2 Concentrator (sold separately)
- Proudly made in the U.S.A.
- One year warranty



NEW
\$825
5 LPM

**EverFlo 5 LPM
Oxygen Concentrator**



NEW
\$1730
10 LPM

**Millennium 10 LPM
Oxygen Concentrator**



A.D.S. 2000

Electronic positive pressure
Anesthesia Machine/Ventilator

Visit our support website for all our brochures,
manuals and how to videos www.engler411.com

All Engler Dental Table top units comes with a **SIX YEAR WARRANTY & LIFE TIME LOANER SERVICE** - Visit our support website for brochures, Manuals, Videos Etc... for complete details



Son-Mate II Ultrasonic Scaler/Polisher

At the touch of the switch, alternate from scaling to
polishing plus a variety of other operations. You can perform
curettage, deep scaling of heavy calculus and stain removal.
Optional drilling & cutting accessories available



Sonus II Ultrasonic Dental Scaler

The Sonus II ultrasonic scaler is a reliable, powerful and
rugged unit that has a proven track record. As with all our table
top dental units it is supplied with our super 6 year warranty,
lifetime loaner service and proudly made in the USA.



TriMate - Scaler, Polisher & Electrosurgery

A three in one unit that offers a high quality, high
powered, fully automated scaler, polisher and general
purpose electrosurgery unit. (**An Engler Exclusive!!!**)



Dynax Stretcher & Gurney

The Dynax Gurney is a tubular frame
construction with unique connectors
creating a means of supporting the
Dynax stretcher and the larger canine
patient, up to 200 pounds.



EZ-Stretcher.com (frameless stretcher)

The frameless feature allows for
easy folding and storage
(storage bag included).

- Holds up to 220 pounds
- Dimensions L82" X w29"
- Radiolucent
- Nylon material is easy to clean
- Rip resistant
- 10 rubber handles for multi person use
- Storage bag included

only \$99

**Order at
EZ-Stretcher.com**



The "Original" Cat Grabber

The CAT-GRABBER is the safest means of
controlling the fractious cat, humanely.

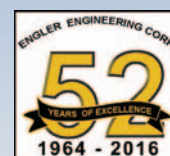


MaxiTherm Circulator Pads

Why pay more? Adapts to all circulator
warmers. Our pads are less expensive, better
quality and will last longer than any other
circulator pad. We also offer our Fleece Bags
to protect our pads from punctures and
provides patient comfort. Engler's innovative
products provide more for less \$\$\$ See
www.dynaxusa.com for more details.

Engler Engineering Corp / Dynax

1099 East 47th Street • Hialeah, Florida 33013 USA
Toll Free 800-445-8581 • Tel: 305-688-8581 / Fax: 305-685-7671
Email: info@englerusa.com • dynax@englerusa.com
Web: www.englerusa.com • www.dynaxusa.com
Download Brochures, Manuals, Videos, How to Pages and much more at:
Support website: www.engler411.com



Proudly made
in the **U.S.A.**

Search for the company name you see in each of the ads in this section for **FREE INFORMATION!**



WOUND CARE PRODUCTS



biovetrex™

A Professional Veterinary
Antimicrobial
Skin and Wound Cleanser & Gel



Manufactured by: Anacapa Technologies, Inc.
San Dimas, California 91773



**KILLS
SUPER
BUGS**

FDA cleared

Broad-Spectrum Antimicrobial

Unique Patented Formula

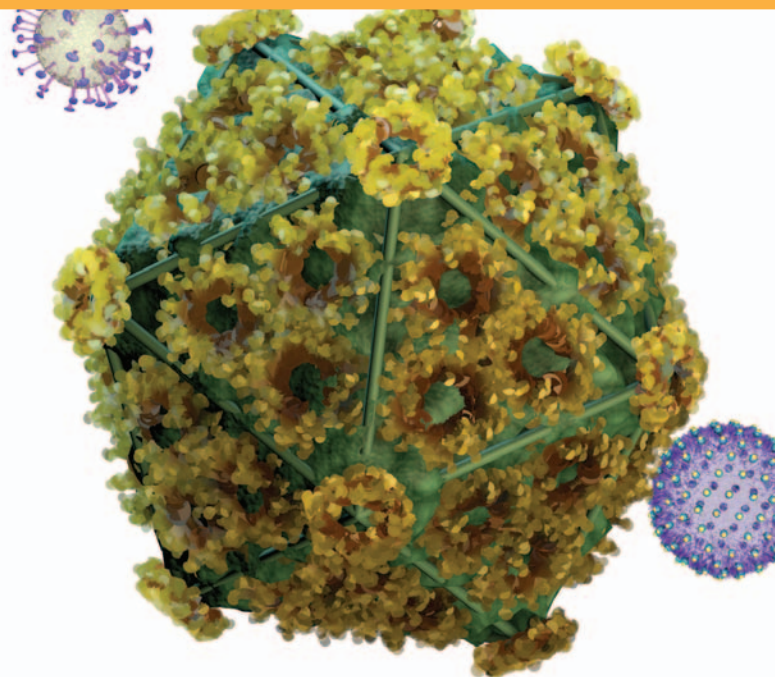
Highest quality available

See Time Kill Charts



Try a free sample

and evaluate for yourself.
Toll-Free: 800-489-2591
www.anacapa-animalhealth.net



ANACAPA

Search



Find it all here.

Content Licensing for Every Marketing Strategy

Marketing solutions fit for:

- Tradeshow/POP Displays
- Outdoor
- Radio & Television
- Social Media
- Direct Mail
- Print Advertising

Logo Licensing | Reprints | Eprints | Plaques

Leverage branded content from *DVM 360* to create a more powerful and sophisticated statement about your product, service, or company in your next marketing campaign. Contact Wright's Media to find out more about how we can customize your acknowledgements and recognitions to enhance your marketing strategies.

**For more information, call Wright's Media at 877.652.5295 or
visit our website at www.wrightsmedia.com**

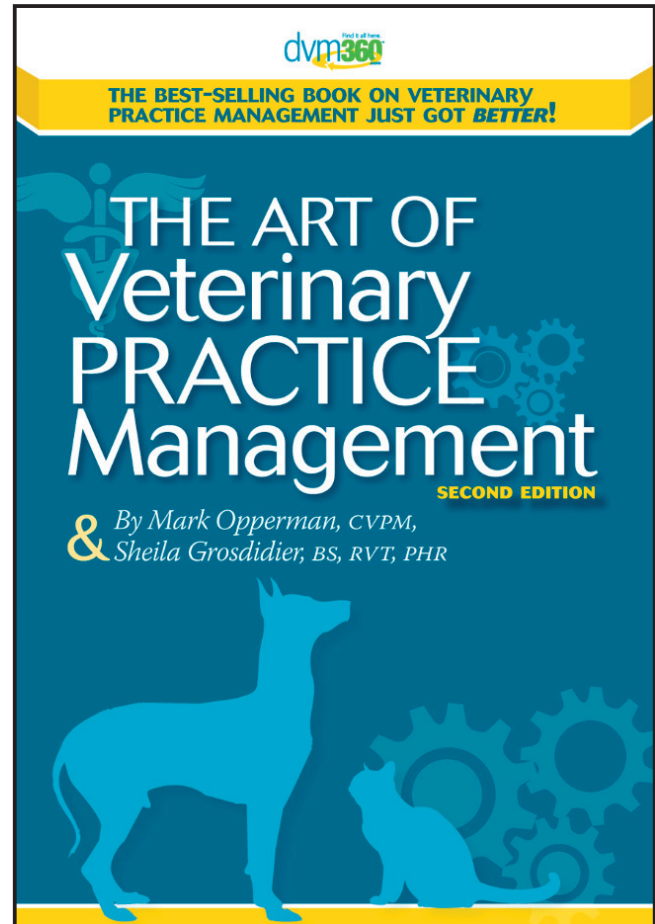
The best-selling book on veterinary practice management just got better.



Mark Opperman
CVPM



Sheila Grosdidier
BS, RVT, PHR



only **\$69⁹⁵**

Take your practice to new heights with the 2nd Edition!

Written for practice managers, veterinarians managing their practice, and graduating veterinarians, **The Art of Veterinary Practice Management, 2nd Edition** combines Mark and Sheila's wealth of insights and practical experience with outside-the-box, big-picture thinking.

This isn't just any update. It packs a hundred pages more than the best-selling original! On top of more than 20 freshly written chapters, the 2nd Edition includes checklists, permission forms, report cards, opposition research reports, performance evaluations and phased training for modern team positions, sample marketing, personnel file guidelines, employee contracts, and more!

Go to industrymatter.com/opperman
or call 1-800-598-6008



industry matter
comprehensive information for professionals


Search for the company name you see in each of the ads in this section for **FREE INFORMATION!**



Anesthesia Equipment

BLUEPRINT FOR BREATHING
Anesthesia made simple... A.D.S. 2000

Proudly made in the U.S.A.



Revolutionary Veterinary Breakthrough


- Anesthesia Machine (Positive Pressure)
- Electronically microprocessor controlled
- Delivery & Ventilation for small animal use
- Automatically sets breathing parameters
- Very affordable and easy to use
- Just connect to vaporizer & Oxygen

6 Hour Battery backup providing portability and protection

engler engineering corporation
In Business Since 1964

1099 East 47th Street - Hialeah, Florida 33013 USA
800-445-8581 - FAX 305-685-7671
www.englerusa.com

BICKFORD
SENSIBLE SOLUTIONS
VETERINARY ANESTHESIA



BICKFORD'S F/AIR SCAVENGING KIT

A.M. BICKFORD, INC.
SINCE 1974

CALL FOR CATALOG 1-800-795-3062
VISIT US AT WWW.AMBICKFORD.COM

Architects/Builders

JFMCCARTHY
CONSTRUCTION

Professional Hospital Development

- Sole source from concept to completion
- Site Selection optimization
- Planning, budgets, financing
- Design and engineering
- Construction management
- Facility operation optimization

Chicago's Only Certified Project & Facility Management Professional

Optimized Value Minimizes Effort, Risk and Cost
Ph 708-547-5096 www.jfmccarthyconstruction.com

Blood Supplies

The Veterinarians' Blood Bank, Inc.

Veterinarian owned and operated for over 10 years and dedicated to providing the veterinary community with safe, cost-effective blood therapy products. **We offer the following products:**

- Canine Whole Blood
- Canine Packed Red Blood Cells
- Canine Fresh Frozen Plasma
- Feline Whole Blood
- Feline Packed Red Blood Cells
- Feline Fresh Frozen Plasma

www.vetbloodbank.com
Toll Free 877-838-8533 or FAX your orders to 812-358-0883

Dental

Quality Dental Products...

Bonart offers a wide variety of small dental equipment, supplies and accessories that are widely used in the veterinary field. An ISO 9001 company and offer 12 months limited warranty on its products.

- Magnetic or Piezo Type Ultrasonic Scalers
- Electro surgery Unit
- Curing Light Unit
- Scaler/Polisher Combo Unit
- Ultrasonic Inserts and Tips
- Implant Surgery System
- Polisher Units
- Much MORE!!!




Initial Distribution By:
Magpie Tech. Corp. (Formerly Bonart Medical)
550 Yorbita Road, La Puente, CA 91744 • Toll Free: (888) 5-BONART
Tel: (626) 600-5330; Fax: (626) 600-5331; <http://www.bonartmed.com>

SON-MATE II DENTAL SCALER POLISHER COMBO

THE ONLY UNIT YOU WILL NEED FOR ALL YOUR DENTAL NEEDS



6 YEAR WARRANTY LIFETIME LOANER SERVICE

Proudly made in the U.S.A. In Business Since 1964

\$1825

engler engineering corporation

1099 East 47th Street - Hialeah, Florida 33013 USA
800-445-8581 - FAX 305-685-7671
www.englerusa.com

Continuing Education

The Capsule Report

A Unique Source of Practical information for your practice

Visit our new website for more information
www.capsulereport.com

Employment

Need Techs? Support Staff?



WhereTechs Connect.com

WORLD'S LARGEST JOB SOURCE AND MARKETPLACE FOR VET TECHS

Fast. Easy. Inexpensive.

WhereTechsConnect.com is your answer!

Identification Systems

TabBand

www.tabband.com
800.521.5123

Strong
Temporary Collars

Medical Equipment

PORTABLE ULTRASOUND

DIGITAL DOPPLER ULTRASOUND
includes 1 transducer of your choice
\$3,995 - \$8,995

Add one additional transducer for \$1,200,
Add second additional transducer \$1,600

Eco-1 BW Eco-5 Color

DIAGNOSTIC IMAGING SYSTEMS 800-346-9729 • VETXRAY.COM
QUALITY | INTEGRITY | VALUE SINCE 1983

VETERINARY EQUIPMENT
"NEW CLINIC" DISCOUNTS

PARAGON MEDICAL

MasterCard 1-800-780-5266 VISA

Visit Our Online Catalog
www.paragonmed.com

Diagnostic Imaging

VETERINARY RADIOLOGY SPECIALISTS

DRwizard Wireless Flat Panel
\$30,000-\$40,000
WITH DICOM SOFTWARE & COMPUTER

- True Cassette Sizes: 10x12 & 14x17
- Wireless • Shock Resistant
- Auto-Xray Detection

PORTABLE X-RAY SERVICE BROKEN? WE FIX IT!
All Makes & Models

DIAGNOSTIC IMAGING SYSTEMS 800-346-9729
XRAYCATALOG.COM VETXRAY.COM
VetXray.com

Diagnostic Products

JOIN THE CULTURE CLUB

Bacterial Culture Plates for In-House Diagnostic Use Urine, Otic, Mastitis Testing Lide Laboratories Inc.
www.lidelabs.com

PLACE YOUR AD HERE

FIND IT ALL HERE!

dvm360.com

Medical Services

ULTRASONIC REPAIRS

Send your Ultrasonic Scaler for tuning and repair to **ENGLER ENGINEERING CORPORATION**, the manufacturer of **TIPS, STACKS** and **MARATHON 25K** insert, **SONUS V, ULTRASON 990, SON-MATE, POLI-X** and **ADS 1000, SONUS II, SON-MATE II** and **ADS 2000** (Anesthesia Delivery System/Ventilator). Sole manuf. of spare parts for the **ENGLER** line of scalers and all the former **LITTON** units the **Sonus II, LT-200, Ultrason 880, Veterinarian II** & others. Six month warranty on repairs. In business since 1964.

NEW Now Repairing: **SHORELINE, Prosonic, OraSonic & AlphaSonic Piezo Electric Ultrasonic Dental Scaler Units**

Check out our **NEW SUPPORT WEBSITE** www.engler411.com **In Business Since 1964**

1099 East 47th Street - Hialeah, Florida 33013 USA  Proudly made in the U.S.A.

800-445-8581 - FAX 305-685-7671
www.englerusa.com

engler
engineering corporation

Rehabilitation Prod

Custom knee braces for CCL injuries

Effective, affordable alternative when surgery is not an option for your canine patients.



My Pet's Brace
Helping Pets Live Happier Lives

mypetsbrace.com | Call 610-286-0018

Medical Products

Vision USA
(800) 257-5782
(856) 795-6199

Laser Safety Glasses
\$39 & up

Exam Lamp
\$84.95

Exam Lamps
3X **\$99.95**

LED/LOUPE
2.5x, 3x, 3.5x, 4x **\$769**

Fit Over Loupe
2.5x, 3.5x - **\$299**

LED Readers
+1,+1.5,+2,+2.5,
+3,+3.5,+4,
+5,+6 or RX **\$19.95**

www.visionusasupplies.com

Mobile Veterinary

Mobile Veterinary Clinics

Lower stress on your patients by bringing all your services to your clients. With less overhead and more freedom!

Your Mobile Workplace



Mobile Veterinary Clinics • Mobile Spay-Neuter Units

MAGNUM MOBILE
Specialty Vehicles

602.478.4206
MAGNUMMOBILESV.COM

West Coast Manufacturer
Phoenix, AZ

Compare our products before rolling forward and you'll find Magnum is By Far The Leader!

aniMotion products
The animal mobility & fitness company

Biko Progressive Resistance (PR) Bands



A NEW OPTION TO TREAT HIND LIMB WEAKNESS!

The Biko PR Bands utilize elastic resistance to assist the dog when walking and turning and helps to prevent knuckling.

The Bands come in a color-coded system of progressive elastic resistance bands. Used in a clinical setting as a physiotherapeutic modality and safe and easy for pet parents to use at home as an assistive device and strengthening exercise.

For more information or to order:
call **919-377-2782**
fax **919-377-2076**
or visit us at aniMotionProducts.com

From Custom Wheelchairs to land-based Rehabilitation Systems,

 **Eddie's Wheels is the veterinarians' choice.**



1-888-211-2700 www.eddieswheels.com

MADE IN THE U.S.A.

Parasitology

CHALEX, LLC

COUNTING SLIDES FOR EGGS PER GRAM (EPG) FECALS
HORSES • SHEEP • GOATS • RUMINANTS

2 AND 3-CHAMBER MCMASTER SLIDES
PARACOUNT-EPG™ FECAL ANALYSIS KITS
NEMATODE SLIDES • CALIBRATED VIALS

VETSLIDES.COM
CHALEXLLC@GMAIL.COM PHONE: 503.208.3831

Pet ID Products

MICROCHIPS Only \$9.95

FREE Registry for Lifetime

No Registry Change Fees
ISO Compliant 134.2 kHz freq.
Readable by **ANY** Universal Scanner

(818) 445-3022 / admin@911petchip.com

www.911PetChip.com

Tags

TAGS

•Available in Colored Aluminum, Brass or Stainless Steel
•Three Rosette Sizes

SCAN FOR A COUPON!



Call us at: **859-261-2035**

NB National Band & Tag Company
INTERNATIONAL IDENTIFICATION INC.
Family Operated Since 1902

tags@nationalband.com
www.nationalband.com

Get more product information online

Find it all here.
dvm360
.com

Researching a purchase?
dvm360.com offers hundreds more product listings.
Just visit
dvm360.com/products

FIND IT ALL HERE!
DVM360.COM

PLACE YOUR AD HERE



Recruitment

CALIFORNIA

FULL TIME Primary Doctor needed for La Verne, CA Veterinary Hospital. Latest equipment. 6 figure base salary PLUS above average industry commission opportunity. Send resume to roman@petdepot.net. Learn more at www.petdepot.net/vet.

IOWA

Iowa Veterinary Specialties is located in Des Moines, Iowa and is a well-equipped facility, well established and supported by a highly skilled and dedicated staff. We are seeking full and part time veterinarians to join a fast paced, progressive Emergency Department. IVS doctors practice high-quality medicine in a friendly, supportive and professional environment. We offer competitive pay and excellent benefits. We strive for best client and patient care, exceeding expectations. Applicant must be a compassionate individual with good interpersonal skills, a positive attitude and excellent communication skills. Contact Julie Kelso at jkkelso@ivsds.com

NEW JERSEY

Animal & Bird Health Care Center is looking to add an Associate Veterinarian to our staff. We are located in Cherry Hill, NJ, just 15 minutes from Philadelphia, and less than one hour from the Jersey Shore. Our clinical team includes an ABVP (Avian) Boarded Diplomate, as well as specialists in Small Animal Internal Medicine and Cardiology. Our CVTs and highly trained support staff are dedicated to the practice of high quality, compassionate medicine for both exotic and small animal species. Our hospital is equipped with digital dental radiology, an advanced dental suite including digital dental radiography, in house fully integrated laboratory, Storz endoscopy and ultrasound. We offer a competitive compensation package, including 401K, healthcare, and continuing education allowance. Candidates should have at least 3 years' experience and interest in, or experience with, exotic species. Please forward your CV to cynthia.ryderabhcc@gmail.com.

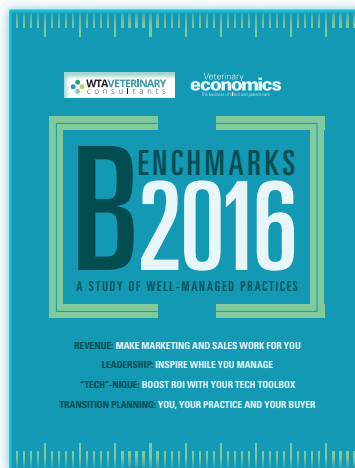
Practice for Sale

NATIONAL

Equine: North Carolina – Reduced Price. Estimated ADI \$164K. 6,250sf, +/-5.5 acres. NC12.
Feline: Florida - 1,765sf freestanding leasehold. Turn-Key! FL84.
Feline: Florida - 2,400sf w/RE. 2-exam rooms. Estimated ADI \$167K. FL86.
Feline: Missouri – 2,200sf leasehold. Upscale area! Estimated ADI +\$110K. MO1.
Mixed: Iowa - 3,696sf, +/-38 acres, 95% SA. Estimated ADI \$113K. IA1.
Mixed: Montana – Reduced Price. 2-building facility w/+4 acres. Estimated ADI \$206K. MT1.
Mixed: Texas - Multi-Doctor, Gross +/- \$2.8M. +/-5.5acres. Turn-Key. TX5.
PS Broker
800.636.4740
psbroker.com
info@psbroker.com

**FIND
IT ALL HERE!
DVM360.COM**

be like
the best.



New for 2016!



Imitation is sincere flattery. It's also best for business.

Veterinary Economics and Wutchiett Tumblin and Associates are back with their one-of-a-kind study. **Benchmarks 2016** shines a spotlight on increasing revenue, fusing leadership and management, taking advantage of technology, and preparing for transition — helping set the standard for practices to emulate.

Revenue. What are the first impressions of your website, customer service, and facilities? They matter. Start implementing the fear-free method to benefit you, patients, and clients alike.

Leadership. Synthesizing leadership and management means knowing the crucial difference! Bolster your team-based culture with empowered, high-performance employees.

Technology. Are you paying other companies to use technology you already have? Set tech goals, and start leveraging your own tools like websites, mobile apps and social media for maximum ROI.

Every year, *Veterinary Economics* and Wutchiett Tumblin and Associates ask top veterinary practices from across the country a question: *What's the secret to your success?* Their answers are inside every edition of the Benchmarks series.

Go to
industrymatter.com/benchmarks
or call 1-800-598-6008



industrymatter
comprehensive information for professionals



For a full listing of events, visit dvm360.com/calendar



December 8-11
CVC San Diego
(800) 255-6864, ext. 6
thecvc.com/sd



May 18-21, 2017
CVC Virginia Beach
(800) 255-6864, ext. 6
thecvc.com/vb



unconventional

Here are the CE opportunities coming in the next few months

October 6-8 ACVS Surgery Summit Germantown, MD acvssurgery-summit.org	October 17-20 Atlantic Coast Veterinary Conference Atlantic City, NJ (908) 281-5108 acvc.org	November 4-6 AAVMC Veterinary Health and Wellness Summit Fort Collins, CO (970) 491-1642 conferences.colostate.edu	3905 vetmed.ucdavis.edu/ce/	8169 vmc-inc.com
October 6-9 21st Annual ABVP Symposium San Antonio, TX (352) 244-3731 abvp.com	October 29 to November 5 The 32nd Muller-Ihrke Veterinary Dermatology Seminar on Maui Kapalua, HI (530) 304-3162 eduvets.com	November 4-6 2016 Potomac Regional Veterinary Conference Washington, DC (804) 346-2611 vvma.org	November 8 Preventive Care Workshop Schaumburg, IL (847) 240-1600 aaha.org/professional/education/preventive_care_workshop_registration.aspx	November 12-13 Laser Therapy: A Paradigm in Veterinary Medicine St. George's, Grenada, West Indies (473)439-2000 ext. 3789 sgualumnicommunity.gd/events/event_list.asp
October 7-9 WSVMA Pacific Northwest Veterinary Conference Snoqualmie, WA (425) 396-3191 wsvma.org	November 1-5 The 17th Veterinary M-E-D (Medicine, Endocrinology, Disease) Seminar on Maui Kapalua, HI (530) 304-3162 eduvets.com	November 5 GVTA Veterinary Technician Conference Athens, GA vet.uga.edu/events/vettech	November 10 Preventive Care Workshop Cincinnati, OH (513) 794-0672 aaha.org/professional/education/preventive_care_workshop_registration.aspx	November 13 It's What's Up Front That Counts Portland, OR (303) 674-8169 vmc-inc.com
October 12-16 Wild West Veterinary Conference Reno, NV (703) 978-7080 wildwestvc.com	November 3-6 2016 American Association of Feline Practitioners Conference Washington, DC (908) 359-9351 catvets.com/education	November 5-6 9th 3 Rivers Veterinary Symposium Pittsburgh, PA (888) 550-7862 pavma.org	November 10-11 Financial Boot Camp Atlanta, GA (303) 674-	December 7-8 Rhode Island VMA Scientific Seminar Newport, RI (401) 751-0944 rivma.org
October 15-18 2016 CanWest Veterinary Conference Banff, AB, Canada (780) 489-5007	November 3-6 2016 American Association of Feline Practitioners Conference Washington, DC (908) 359-9351 catvets.com/education	November 6 UC Davis 2016 Feline Forum Davis, CA (530) 752-	November 10-11 Financial Boot Camp Atlanta, GA (303) 674-	December 9-11 CVC in San Diego San Diego, CA (800) 255-6864, ext. 6 thecvc.com

dvm360™ (Print ISSN: 2326-0688, Digital ISSN: 2326-070X) is published monthly by UBM Life Sciences 131 W First St. Duluth MN 55802-2065. Subscription rates: \$40 for one year in the United States & Possessions, Canada and Mexico; all other countries \$87.50. Single copies (prepaid only): \$18 in the United States; \$20 in Canada and Mexico; \$24 all other countries. Back issues, if available: U.S. \$23; Canada/Mexico \$28; all other countries \$46. International pricing includes air-expedited service. Include \$6.50 per order plus \$2 per additional copy for U.S. postage and handling. Periodicals postage paid at Duluth MN 55806 and additional mailing offices. POSTMASTER: Please send address changes to DVM360, P. O. Box 6309, Duluth, MN 55806-6309. Canadian GST number: R-124213133RT001. Publications Mail Agreement Number 40612608. Return undeliverable Canadian addresses to: IMEX Global Solutions, P.O. Box 25542, London, ON N6C 6B2, Canada. Printed in the U.S.A.

© 2016 UBM. All rights reserved. No part of this publication may be reproduced or transmitted in any form or by any means, electronic or mechanical including by photocopy, recording, or information storage and retrieval without permission in writing from the publisher. Authorization to photocopy items for internal/educational or personal use, or the internal/educational or personal use of specific clients is granted by UBM for libraries and other users registered with the Copyright Clearance Center,

222 Rosewood Dr. Danvers, MA 01923, 978-750-8400 fax 978-646-8700 or visit <http://www.copyright.com> online. For uses beyond those listed above, please direct your written request to Permission Dept. fax 440-756-5255 or email: mcannon@advanstar.com.

UBM Life Sciences provides certain customer contact data (such as customers' names, addresses, phone numbers, and e-mail addresses) to third parties who wish to promote relevant products, services, and other opportunities which may be of interest to you. If you do not want UBM Life Sciences to make your contact information available to third parties for marketing purposes, simply call toll-free (866) 529-2922 between the hours of 7:30 a.m. and 5 p.m. CST and a customer service representative will assist you in removing your name from UBM Life Sciences' lists. Outside the United States, please call (218) 740-6477. dvm360 does not verify any claims or other information appearing in any of the advertisements contained in the publication, and cannot take responsibility for any losses or other damages incurred by readers in reliance on such content. dvm cannot be held responsible for the safekeeping or return of unsolicited articles, manuscripts, photographs, illustrations, or other materials. Address correspondence to dvm360, 8033 Flint, Lenexa, KS 66214; (913) 871-3800. To subscribe, call 888-527-7008. Outside the U.S. call 218-740-6477.

STATEMENT OF OWNERSHIP, MANAGEMENT, AND CIRCULATION
(Requester Publications Only)
(Required by 39 USC 3685)

1. **Publication Title:** dvm360
2. **Publication Number:** 2326-0688
3. **Filing Date:** 9/30/16
4. **Issue Frequency:** Monthly
5. **Number of Issues Published Annually:** 12
6. **Annual Subscription Price (if any):** \$40.00
7. **Complete Mailing Address of Known Office of Publication:** 131 West First Street, Duluth, St. Louis County, Minnesota 55802-2065
Contact Person: Jessica Stariha
Telephone: 218-740-6870
8. **Complete Mailing Address of Headquarters or General Business Office of Publisher:**
2 Penn Plaza, 15th Floor, New York, NY 10121
9. **Full Names and Complete Mailing Addresses of Sales Director:** David Doherty, 8033 Flint St., Lenexa KS 66214
Editor/News Channel Director: Kristi Reimer, 8033 Flint St., Lenexa KS 66214
Content Manager: Adrienne Wagner, 8033 Flint St., Lenexa KS 66214
10. **This publication is owned by:** Advanstar Communications Inc., 2 Penn Plaza, 15th Floor, New York, NY 10121. The sole shareholder of Advanstar Communications Inc. is: Rocket Holdings, Inc., 1983 Marcus Ave., Suite 205, Lake Success, NY 11042.
11. **Known Bondholders, Mortgages, and Other Security Holders Owning or Holding 1 Percent or More of Total Amounts of Bonds, Mortgages, or Other Securities. If none, check box.** ☒ None
12. **Does Not Apply**
13. **Publication Title:** dvm360
14. **Issue Date for Circulation Data Below:** August 2016
15. **Extent and Nature of Circulation**

	Average No. Copies Each Issue During Preceding 12 Months	No. Copies of Single Issue Published Nearest to Filing Date
A. Total Number of Copies	50,146	51,210
B. Legitimate Paid and/or Requested Distribution		
1. Outside County Paid/Requested Mail Subscriptions Stated on PS Form 3541	37,564	39,233
2. In-County Paid/Requested Mail Subscriptions Stated on PS Form 3541	0	0
3. Sales Through Dealers and Carriers, Street Vendors, Counter Sales, and Other Paid or Requested Distribution Outside USPS	67	214
4. Requested Copies Distributed by Other Mail Classes Through the USPS	0	0
C. Total Paid and /or Requested Circulation (Sum of 15b (1), (2), (3), and (4))	37,631	39,447
D. Non-requested Distribution		
1. Outside County Non-requested Copies Stated on PS Form 3541	12,106	11,137
2. In-County Non-requested Copies Stated on PS Form 3541	0	0
3. Non-requested Copies Distributed Through the USPS by Other Classes of Mail	0	0
4. Non-requested Copies Distributed Outside the Mail	376	590
E. Total Non-requested Distribution (Sum of 15d (1), (2), (3) and (4))	12,482	11,727
F. Total Distribution (Sum of 15c and e)	50,113	51,174
G. Copies not Distributed	33	36
H. Total (Sum of 15f and g)	50,146	51,210
I. Percent Paid and/or Requested Circulation	75.09%	77.08%

16. **Electronic Copy Circulation**
*If you are not claiming electronic copies, skip to line 17
17. **Publication of Statement of Ownership for a Requester Publication is required and will be printed in the October issue of this publication.**
Name and Title of Editor, Publisher, Business Manager, or Owner:
Kristina Bildeaux, Audience Development Director

Kristina Bildeaux

Date: 9/30/16

I certify that the statements made by me above are correct and complete.



On the loose: a wild pack o' wieners!

Dr. Brock's patients have a run-in with an unusual tormentor.

I was peering into a microscope when Dr. Brian came around the corner. His expression was a mix of laughter and bewilderment and made his eyebrows rest at different levels on his forehead.

"You gotta have a look at the pit bull in the first exam room," he said. "Just have a look and tell me what you think."

There was no hint in his voice as to what I might see.

I stepped into the exam room and saw a ten-month-old pit bull puppy with bite wounds all over his fanny and back legs. His owner was a middle-aged lady with stiff black hair who was wearing a mumu. She was ranting to an adolescent boy in the room who seemed to be paying no attention to her at all.

When she saw me enter, she started her story from the beginning.

"I looked out the front door and my pit bull was standing in the middle of the grass on the east side of the yard. There was a pack o' wieners surrounding him," she said. "They were ferocious beasts that were showing their fangs and darting in and out so fast that he couldn't defend himself. The ones closest to his head would distract him, while the ones behind him would chew up his posterior. When he would turn on the back ones, the front ones would then chew his posterior."

"They were possessed by the devil. There were dozens of them. I ran out the front door and screamed at them while waving a broom and they disappeared into the brush."

I asked her what a pack o' wieners was. She quickly snapped, "Wiener dogs! Man-eating, frothing wieners."

When I left the room I couldn't de-

cide whether to laugh or feel dread for the people in her town. After all, a mere 50 miles from Lamesa, Texas, where my clinic is, there's a pack o' wieners that can outmatch a pit bull.

A few days later I was walking through the lobby and encountered a rather sophisticated lady with a bleeding German shepherd. It seemed to have bite marks all over its hind end and I wondered if perhaps it had met the same fate as the pit bull. When I asked what had happened to the pooch, her lips pursed and her eyes rounded as she explained the series of events.

"We were taking a walk close to the park when out of the bushes came a herd of weenie dogs. There were dozens of them," she said. "They surrounded my dog and attacked him. The beasts were like piranhas attacking him relentlessly. I picked up a stick and began swinging it in all directions and finally scared them off. But my dog was wounded badly."

What? Two episodes of wiener dog savagery in one week? I felt bad for the dog but laughed as I visualized what a herd of mad weenies must look like.

As fate would have it, the next day a third victim made its way to our clinic. This lady was more angry and matter of fact. Her dog was chewed up the worst and her story involved action instead of reaction.

"The flock of wieners appeared out of nowhere and surrounded me and my red healer with bad intention. I could tell it in their bark, they meant business. They were all different colors and some had long hair, but none of them was more than seven inches tall," she exclaimed. "They surrounded us and began yipping and darting so fast that

my dog had no chance. They would rear up on their hind legs as they came in for the attack. I was frantically kicking and rebuking them, but they just kept chewing up his hind end. A man working in his yard saw the event and came to our aid with a shovel. We managed to run them off and they went down an alley toward the high school.

"I called the animal control officer and he told me that there had been many complaints, but the wieners were clever and he couldn't find them," she continued. "He said he was afraid that they had reverted to their primitive state and were a danger to the town!"

Reverted to their primitive state? I pictured a saber-toothed weenie dog with giant incisors and woolly neck hair like a male lion. Was there truly a time when savage weenie dogs roamed the plains of Germany in giant packs, killing everything in their path?

I wrote down the different descriptions I'd heard over the last few days to describe a dachshund. I laughed to myself considering just how lucky I am to be a veterinarian. Who else gets to be exposed to a pack, a herd, or a flock of ferocious, devil-possessed dogs with barks that meant business? Dogs that would dart, rear and yip with fangs showing. Dogs that had multiple coat lengths and colors and piranha-like tendencies, that were possibly man-eating and had slobber frothing at their mouths, and had possibly reverted to a primitive state?

Who would have ever supposed that wieners could be so tough. **dvm360**

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

are you
nonconventional?



smarteasy**affordable**
veterinarycontinuingeducation

www.TheCVC.com



UBM

©2016 UBM. All Rights Reserved.

Scarlet is why SDMA matters

The IDEXX SDMA Test is a more reliable indicator of kidney function than creatinine

Name	Gender	Breed
Scarlet	Spayed female	Golden retriever

Scarlet's story

Scarlet presented for her annual preventive care visit. Her creatinine result was normal, but an increased SDMA prompted her veterinarian to investigate further, discovering stage 2 chronic kidney disease.

Result

Because Scarlet's veterinarian acted on the IDEXX SDMA™ Test, Scarlet is on a kidney therapeutic diet, and she's alive and happy today.

The IDEXX SDMA Test identifies chronic kidney disease up to 27 months earlier in dogs than creatinine* and up to 48 months earlier in cats.*

The IDEXX SDMA Test is more reliable than creatinine in assessing kidney function as it can identify the disease earlier and is not affected by muscle mass and extrarenal factors that impact creatinine.* In fact, the IDEXX SDMA Test has been included in the International Renal Interest Society (IRIS) Chronic Kidney Disease (CKD) Staging and Treatment Guidelines as a useful adjunct for diagnosing CKD and to help determine treatment for the appropriate stage of CKD. With the IDEXX SDMA Test, you can diagnose CKD earlier in cats and dogs, giving you more time for effective treatment options, so you can improve and possibly extend the lives of your patients. **The IDEXX SDMA Test is the new standard of care for veterinary medicine and your patients.**

IDEXX VetConnect ⁺ PLUS		Home Directory of Services Imaging Telemedicine	
		12/31/2014 (Order Received) 1/6/2015 @ 5:49 PM (Last Updated)	IDEXX Reference Laboratories Show Details
▶ Glucose	91	63 - 114 mg/dL	<div><div></div></div>
▶ BUN	29	9 - 31 mg/dL	<div><div></div></div>
▶ Creatinine	1.5	0.5 - 1.5 mg/dL	<div><div></div></div>
▶ IDEXX SDMA Learn More	^m 17	0 - 14 µg/dL	<div><div></div></div>

To see the full chemistry report, idexx.com/5minutes

**Get the 5-Minute Guide
to the IDEXX SDMA Test**

Visit idexx.com/5minutes

Strengthen the bonds.™

*To see the proof and a complete list of references, visit idexx.com/5minutes.

© 2016 IDEXX Laboratories, Inc. All rights reserved. • 110307-00
All ®/TM marks are owned by IDEXX Laboratories, Inc. or its affiliates in the United States and/or other countries. The IDEXX Privacy Policy is available at idexx.com.

IDEXX