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With the convenient VetPen®, you can offer clients 2 administration options for Vetsulin® in BOTH diabetic dogs and cats.

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An easy option.

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- A reassuring option for owners of newly diagnosed pets





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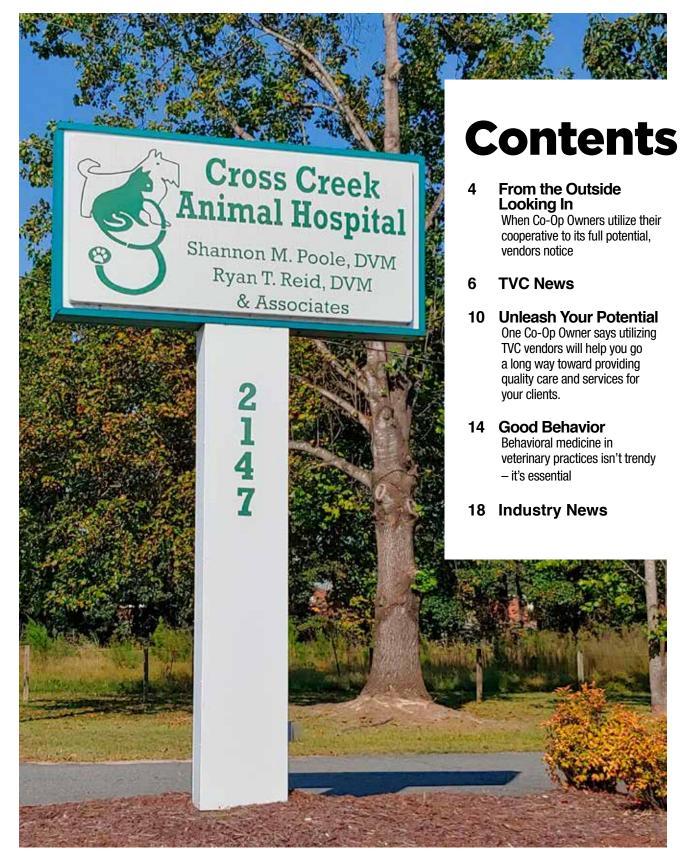
Vetsulin* should not be used in dogs or cats known to have a systemic allergy to pork or pork products. Vetsulin* is contraindicated during periods of hypoglycemia. Keep out of reach of children. As with all insulin products, careful patient monitoring for hypoglycemia and hyperglycemia is essential to attain and maintain adequate glycemic control and prevent associated complications. Overdosage can result in profound hypoglycemia and death. The safety and effectiveness of Vetsulin* in puppies and kittens, breeding, pregnant, and lactating dogs and cats has not been evaluated. See package insert for full information regarding contraindications, warnings, and precautions.

Please see other side for full prescribing information.

References 1. Data on file, Merck Animal Health. 2. Davison LJ, Walding B, Herrtage, ME, Catchpole B. Anti-insulin antibodies in diabetic dogs before and after treatment with different insulinpreparations. J Vet Intern Med. 2008;22:1317-1325. 3. Feldman EC. Diabetes remission in cats: which insulin is best? Compend Contin Educ Vet. 2009;31(7 Suppl A).







From the Outside Looking In

When Co-Op Owners utilize their cooperative to its full potential, vendors notice

By Mark Wainscott, Senior Director of Strategic Accounts, MWI Animal Health As a distributor, we do business with TVC because it offers a great value proposition.

For instance, partnering with TVC gives us access to a lot of practices. And, as a cooperative, TVC sends money that it receives back to the membership. That's unique. There are a lot of GPOs in the market, and a lot of them are for-profit. Some of them are even owned by other distributors, which should be bothersome to independent practices using them to purchase supplies.

Independent practices face a challenging marketplace.
A lot of it has to do with the veterinary industry as a whole.
You're getting pressure from retail and home delivery.

For us, it made a lot of sense to partner with TVC because we wanted to see as much savings as possible going back to the practices directly.

From our perspective, being in a cooperative gives you leverage with suppliers. As a single practitioner, it would be very difficult for you to get the same types of deals that TVC has

been able to negotiate with manufacturers and distributors. With TVC, you pay a small membership fee, and the return you get is much higher than it would be by negotiating on your own.

Independent practices face a challenging marketplace. A lot of it has to do with the veterinary industry as a whole. You're getting pressure from retail and home delivery. Chewy.com has an impact, simply because of the pricing they're passing through to the consumer.

By maximizing your membership in TVC, you're taking advantage of economies of scale: the more purchasing power that TVC and its Co-Op Owners have, the greater the discounts you're going to be able to negotiate with your suppliers, whether they're a manufacturer or a distributor. The more business that flows through those partners, the more apt they are to provide additional discounts to those members.

The cooperative overall will benefit even more if you strive to increase your business with TVC partnered vendors to 90%- 100% of your total purchases. Taking advantage of all TVC has to offer creates a healthier environment for your practice, your fellow Co-Op Owners, and independent veterinary practices in general.



9 OUT OF 10 PET OWNERS PREFER BRAVECTO OVER OTHER PRODUCTS.*

9:1

Ask your Merck Animal Health representative about Bravecto today

www.BravoVets.com



*Lavan RP, Armstrong R, Normile D, Zhang D, Tunceli K (2017) Results from a U.S. Dog Owner Survey on the Treatment Satisfaction and Preference for Fluralaner against Flea and Tick Infestations. J Vet Sci Technol 8: 439. doi: 10.4262/2157-7579.1000439

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This Month at the Veterinary Cooperative

TVC News

McGuann & Schwadron CPA announced as TVC's newest vendor

You spoke, we listened. TVC now has a dedicated partner who specializes in tax, accounting, bookkeeping, and business consulting services by CPAs for the veterinary industry! Their mission is to make your veterinary practice more successful through on-going financial, tax, and business recommendations that will lead to more profitability, in turn helping you reach your financial objectives. Head to the IVC + McGuann & Schwadron CPA page to learn more.

TVC welcomes two new team members

To celebrate National Cooperative Month, TVC is excited

to announce two new TVC staff members joining the TVC team! Jenny Hartfield joins us as a Product Experience Specialist, and Pablo Lopez joins us as our Director of Marketing and Operations. 2020 planning is in full swing, and we are thrilled to see where their insight and ideas take us!

Gift Cards now added to our PurrrchasePoints™ Store

Do you have TVC PurrchasePoints[™] but unsure what to buy? Well, now for a limited time Gift Cards are available for purchase on the TVC PurrchasePoints[™] Store! Be sure to place your order before November 15, 2019 when the Gift Card offer expires. Click here to check it out.

Vendor News

Royal Canin launches Urinary S0® Aging

Nutrition plays a key role in urinary patients' ongoing health. That's why Royal Canin developed a new product specifically for aging urinary patients. Urinary SO® Aging features cutting edge innovation to help effectively manage Lower Urinary Tract Disease (LUTD) in aging cats and dogs. The

formula uses Relative Supersaturation methodology to help reduce the risk of struvite and calcium oxalate crystallization in older pets. Check out more on this innovative new diet here, or check out the TVC + Royal Canin page for additional brand features.

TVC University Live CE Webinars



Click Here to Register

Enhancing Client Bonds, Hospital Culture & Finances with Pet Health Insurance November 12 | 9 AM & 1 PM (CST)

Join **ASPCA** at the November CE Live Online webinar, for a 1-hour RACE-approved presentation. Attendees will earn **1 CE credit** and be entered in a drawing for a chance to win an **Echo Spot (\$150)**. There will be a lucky winner in both the AM & PM sessions!

Abstract: Why should Pet Health Insurance be your hospital's top strategic priority in 2020? This non-branded presentation will examine current literature regarding the impact of economic limitations on hospital culture, what clients want regarding financial discussions and how Pet Health Insurance can be a tool to meet their expectations. Included in this presentation will be recommendations for implementing pet health care in hospitals.



Engineered for cats. Without compromise.



Oral Suspension for Cats

Efficacy

Safety

Ease-of-use

Find out more at 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. WARNINGS: For use in cats only. PRECAUTIONS: The safety of pradofloxacin in cats younger than 12 weeks of age has not been evaluated.



TVC University Live CE Webinars



Sink or Swim: Keeping Up with The Times November 26 | 9 AM & 1 PM (CST)

Click Here to Register

Join TVC and **MWI** at the November TVC University Live webinar you won't want to miss! The veterinary industry is currently facing a rapid pace of change. In times such as this, it is of the utmost importance that one keeps up with these developments, as this is how you can keep practicing the best medicine possible. In this webinar, we will help walk you through **embracing new technology in inventory management, new sources of revenue, and finding assistance in accessing this technology.** However daunting larger investments into newer machines and such may be, there is a clear long-term benefit, and we at TVC, and our distributor partners MWI, are committed to educating and aiding you in these times.

Promotions

ALLYDVM & Merck: Take advantage of ALLYDVM'S unique services and focus on gaining Bravecto business! See TVC to confirm eligibility. Click here for details.

Hill's Pet Nutrition: Use code "THANKU30" to save 30% off your VIP Market Order! Limited to one use per employee. Click here for details.

Hill's Pet Nutrition: Earn TVC PurrrchasePoints™ on qualifying vet sponsored home delivery orders! Click here for details.

Hill's Pet Nutrition & Vetsource: Earn points when you place qualifying urinary diet orders of Hill's pet foods through Vetsource, ScriptRight, or schedule a Hill's Urinary Lunch & Learn. Top point earners receive gift cards! Click here for details.

LabelValue: Use TVC exclusive promotional code "CUSTOMTVC25" to receive \$25 off your first custom order. Click here for details.

Microsoft: Save up to \$400 on select Microsoft Surface Laptop 2 and up to \$300 on select Surface Pro 6 devices through the end of the year. Click here for details.

Royal Canin: Royal Canin launches new Urinary SO® Aging! Click here for details.

Petlink: Looking for a change in microchips? Check out Petlink and receive free microchips or a scanner when you place an order for 50 or more Petlink SLIM microchips! Click here for details.

Purina®: Buy 3 bags 6-pound bags of Purina® Pro Plan® Veterinary Diets EN Gastroenteric Fiber Balance® Canine and get 1 free! Or, buy 3 bags of Purina® Pro Plan® Veterinary Diets DM Dietetic Management® Feline, and get 1 free! Click here for details.

Purina® Vet Direct: Use code "TAKE30" to receive 30% off first Auto Shipment orders. Plus free shipping on all orders on Purina Vet Direct — no code required! Click here for details.

Purina® Vet Direct: Use code "FFSave9" to receive \$9 off Fortiflora or use code "Calm10" to receive \$10 off Calming Care orders through Purina Vet Direct. Click here for details.

Vetone: Buy 3, get 1 FREE on OstiMax[™] through the end of 2019! Click here for details.

Vetoquinol: Buy 1, get 1 FREE on Flexprofen[™]! Click here for details.

Vetsource: Earn \$500 when you sign up for Vetsouce and place 10 qualifying orders before November 10, 2019! Click here for details.

Virbac: Now through the end of 2019, earn up to 16 FREE Cartons of Sentinel or Iverhart brand products for qualifying clinics, plus receive additional free product and rebates. See TVC to confirm eligibility. Click here for details.

Wedgewood Pharmacy: Looking for Pimobendan? Check out Wedgewood Pharmacy! Click here for details.



The dogs have spoken.

Flea allergies are on the rise, up 12.5%.2 Protect your patients with tasty SENTINEL® SPECTRUM® Chews (milbemycin oxime/lufenuron/praziquantel).

Special ingredient lufenuron prevents flea infestations before they start!

6-in-1 parasite protection











SENTINEL SPECTRUM Chews for your clinic, contact your Virbac representative at 1-844-4-VIRBAC (1-844-484-7222).

Important Safety Information for SENTINEL® SPECTRUM® Chews (milbemycin oxime/lufenuron/praziquantel): Dogs should be tested for heartworm infection prior to use. Mild hypersensitivity reactions have been noted in some dogs carrying a high number of circulating microfilariae. Treatment with fewer than 6 monthly doses after the last exposure to mosquitoes may not provide complete heartworm prevention. For complete product information, refer to the product insert. To obtain a product insert, contact Veterinary Technical Product Support at 1-800-338-3659, or visit us.virbac.com.

*Prevents flea eggs and maggot-like larvae from developing; is not an adulticide.

To order

References: 1. The fies: eat, mate, repeat. Banfield Pet Hospital website, https://www.banfield.com/pet-healthcare/

Shaping the future





Unleash Your Potential

One Co-Op Owner says utilizing TVC vendors will help you go a long way toward providing quality care and services for your clients.

Call it one big extended family. Cross Creek Animal Hospital, a TVC Co-Op

Owner located in Fayetteville, North Carolina, strives to have a very family-friendly atmosphere. "It doesn't feel like a sterile environment for our clients," says Dawn Olsen, director of hospital administration. "We work hard to make sure our clients feel like they are a part of our family, and their pet is a part of our family as well."

Fayetteville just so happens to be home to a major military installation, Fort Bragg, so that means Cross Creek Animal Hospital's family is coming from all over the United States – and the world.

"We always work to make sure our patients are healthy and taken care of, but when they move (whether it's across states or across the globe), we do a lot of international health certificates," Olsen says. "We do have a lot of people coming in from other countries. We ship pets to other countries, so that way we have the knowledge that we are keeping their pets healthy and happy to travel. We're able to share our experience and knowledge with many different types of family members that are coming here from across the world. If there is any animal traveling in the U.S. or outside the U.S., we're one of the only local clinics that actually does all of the documentation to get the pet certified to go over."

Quality products, quality service

In order to keep up with the unique demands of its patient base, Cross Creek Animal Hospital takes full advantage of its TVC membership by utilizing TVC vendors. Olsen says Cross Creek Animal Hospital uses vendors that are well-known, marketed and researched.

"We know that we get both quality products and services from these vendors that benefit the clinic and the client," says Olsen, who does the ordering for the hospital. She makes it a point to check the TVC Member site a couple times a week for vendor updates.

"In addition to that, the vendors that we are working with help us as a business with incentives and rebates that go a long way toward providing

A word on wellness plans

Want to strengthen the bond between your clinic and vour clients?

Dawn Olsen, director of hospital administration for Cross Creek Animal Hospital, says wellness plans are a great place to start. "We've implemented wellness and preventative plans for our patients that cover the maintenance care over the course of the year," she says. Pet owners like being able to space out their payments over the course of a year to help with the cost of care. And by doing so, Olsen says clients have been

very compliant about coming back to make sure their pets are taken care of.

"For us it's a no brainer to sign a kitten or a puppy up on a wellness plan, because that's going to cover the full core vaccine, and possibly things like spay/neuter (if they opted for it)," Olsen says. Once the puppy plan expires, clients do have to come in and re-enroll in an adult plan, "but they're coming back to re-sign the pet up for good, quality care, that continues through the life of the pet."



quality care and services for our clients and staff."

That includes Merck and its flea & tick preventative, Bravecto. The veterinarians and team members at Cross Creek Animal Hospital are constantly searching for ways to help clients to remember to give preventatives as well as making it easier and affordable. Introducing the flea & tick preventative has been a home run for the animal hospital.

"Bravecto is a big thing here," says Olsen. "Since bringing Bravecto into the hospital, we've noticed much higher compliance for flea & tick prevention. We're always selling heartworm preventatives, but as far as flea & tick, it was usually on the backburner. Since we brought in Bravecto, we've seen almost a 100% jump."

"Bravecto is a big thing here. Since bringing Bravecto into the hospital, we've noticed much higher compliance for flea & tick prevention."

- Dawn Olsen, director of hospital administration

When clients come in to purchase heartworm preventative, the vast majority are signing up to purchase Bravecto as well. As a result, Cross Creek Animal Hospital has seen a noticeable decrease in juvenile flea cases, as well as flea dermatitis. "Bravecto is offered at a good price, it's a 3-month tablet, and it's easy

for clients to give," says Olsen. "It's an all-around good product."

Indeed, being a part of TVC has opened Cross Creek Animal Hospital up to different ideas, and new incentive programs. "It has encourages us to look at new ideas and avenues we might not have thought of before," Olsen says.



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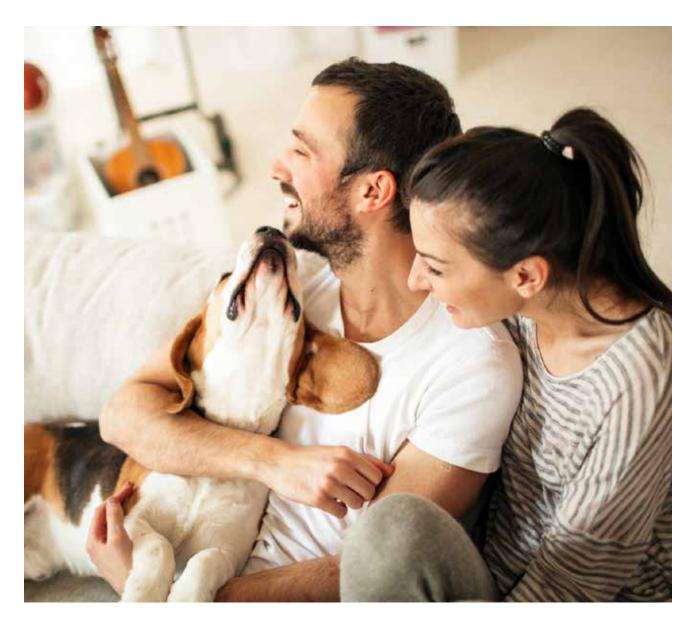
RESOURCES AT PURINAPROPLANVETS.COM.

Good Behavior

Behavioral medicine in veterinary practices isn't trendy – it's essential

By Graham Garrison

The reasons a client doesn't bring up her pet's behavior during a visit to the veterinary practice vary. For instance, there are times when the client is simply embarrassed by her pet's behavior, perhaps feeling it's her fault, and therefore she fails to broach the topic with her veterinarian, say Kenneth Martin, DVM, Diplomate, ACVB, and Debbie Martin, LVT, CPDT-KA, KPA CTP, VTS (Behavior), Veterinary Behavior Consultations.



Other times, a client may assume that undesirable behaviors of her pet is "normal" or nothing can be done to change the behavior.

Perhaps, previous attempts to "treat" the undesirable behavior have been ineffective, or the client believes the problem is directly related to her pet's obedience training, rather than it being an emotional disorder.

Whatever the reason, behavior problems aren't something to make light of with clients. For veterinary medicine, it's serious business. Behavior issues are the most common reason for the relinquishment and/or euthanasia of healthy pets, say Drs. Kenneth Martin and Debbie Martin. "More pets lose their homes and lives due to behavior concerns than all combined infectious disease. Clients are lost, patients are lost, and humananimal bonds are forever damaged."

According to experts, preventive behavior medicine holds the key to pet retention and providing a full and happy life for the pet and pet owner.

Lack of training

Karen L. Overall, MA, VMD, PhD, DACVB says she's always known that fear, rough handling and entrapment were problematic. When she was 19, she worked in the oncology group at Children's Hospital of Philadelphia (CHOP) and "saw how different medical care could be if you engaged sick kids in it actively and cared about their quality of life."

The behavioral medicine "aha" moment for her in veterinary medicine was early in her residency. A pet owner brought in a dog who couldn't stop spinning and chasing his paws and tail. And if he was being watched,

he would cry non-stop. "For the first time I knew that that behavioral condition was wholly biological and I needed to learn how to fix it."

She walked immediately over to the psychiatry department and was hooked, "and really have never looked back. Any chance to make life less difficult for others is a gift."

However, Overall says the vast majority of veterinarians lack anything but cursory training in behavioral medicine. "Clinical experience is exceptional. So veterinarians are very aware that

reasons are related, she says. Comfort level depends on knowledge.

There are also unrelated reasons. For example, many veterinarians have little tolerance for aggressive dogs, Overall says. Dealing with aggressive dogs takes too much time, demands too much physical and mental energy, and is a potential risk to the veterinarian, staff, and client. "And, veterinarians worry that these dogs can't get better (they can!). Many specialists also don't like seeing aggressive dogs for the same reason."

"More pets lose their homes and lives due to behavior concerns than all combined infectious disease. Clients are lost, patients are lost, and human-animal bonds are forever damaged."

- Drs. Kenneth Martin and Debbie Martin

they might not know the answer and they don't want to give misinformation. Also, in part because they lack training, veterinarians are uncomfortable with behavior questions."

Not knowing the answers – or even what questions to ask next – puts veterinarians in an awkward situation with clients, Overall says. "They want to help, but they know there is a lot of myth and don't want to have to struggle with a lot of client needs and questions which they are ill prepared to handle." These two

But aggression doesn't happen in a vacuum, says Overall. It's a call for help. Rather than tell clients that it is "okay" when they apologize for the dog's behavior, Overall encourages veterinarians to try another route — stop the exam, put the dog in the car, and talk to the client about the pattern and triggers of these behaviors. This process may reveal a way to help a distressed and sad dog and a worried owner, and guarantee a developed client.

"You don't actually have to know what you are doing – you can get out

the books after you talk to the client," she says. "But in anything except emergency situations, we've been trying to convince veterinarians to see aggression as a call for help, and as the only way the truly distressed dog can tell everyone how much they are suffering mentally. Forcing them to go through with the exam runs the risk of making them worse, and certainly cannot help them. Instead, calming them down and learning about them and why they respond this way can make all the difference."

dog or cat with a behavioral concern are vested in the entire animal and will expect state-of-the-art care for all life stages. Only if veterinarians keep this large number of patients in the population, will the field develop the expectation of such care at all stages in the private practice world. Treating the whole patient grows the field financially and intellectually."

That's that practical answer, at least. The more complex answer is that behavior is the final integrating pathway of all organ system responses,

haviorally, at some level."

Having a veterinary practice that has a defining capability in behavioral medicine can provide a differentiating advantage over other practices, says Eric Shreves, DVM. "Helping the clients address and manage their pet's behavioral issues will not only improve the behavioral health of the patient, but doing so will also strengthen the human-animal bond between the patient and client, helping to keep that pet in a happy and

healthy environment."

or puppies and having difficulty with

respiratory illness? It's behavioral ...

calmer, petted, less anxious animals

are more resistant to infectious disease. Seizure activity incompletely

controlled? Anxiety may play a role

and concomitant treatment may help.

The list goes on, but everything we do

is done because of what we see be-

In the U.S., greater than 40 percent of abandoned dogs are relinquished due to behavioral problems. Shreves says. In pet cats, behavior problems are still the most common cause of euthanasia. Addressing behavioral medicine not only helps to strengthen the human-animal bond, but also the practice's bottom line. "It is estimated that veterinarians will lose approximately 15 percent of their patient base each year due to relinquishment to animal shelters and/or euthanasia," he says. "This may be due to veterinarians being excluded from discussions regarding behavioral medicine. Less than half of pet owners seek veterinary advice when faced with an anxious pet. Clients are more likely to seek advice from the internet, breeders,

"The core discipline in any practice should be behavioral medicine. GI problems? There is likely a behavioral component. Breakthrough pruritus? Behavior. Ingestion of foreign objects? Behavior."

- Karen Overall, MA, VMD, PhD, DACVB

The core discipline for veterinary practices

Behavioral concerns aren't just a peripheral issue or symptom. They are the entry level condition, says Overall. "If you help clients with distressed pets, they're yours for life. On the other hand, if you scare those pets, those clients may leave. "Clients who care enough to help a

Overall says. "The core discipline in any practice should be behavioral medicine. Gl problems? There is likely a behavioral component. Breakthrough pruritus? Behavior. Ingestion of foreign objects? Behavior. Broken teeth? How did they do it? Check their behavior. Endocrinopathies that are tough to diagnose or control? Get a behavioral history. Fostering kittens

and friends. Clients may often feel guilty about not properly training or handling their pet and may not even realize behaviors could result from a medical problem. Having behavioral medicine as a core competency in a practice can help break this trend and keep clients in-house while improving the patient's quality of life."

Better outcomes

At Veterinary Behavior Consultations, clients and their pets are seen on a veterinary referral basis from surrounding veterinary practices. After reviewing a thorough behavioral and medical history and discussing client concerns, the client is given a behavioral diagnosis, prognosis, and appropriate treatment plan for their pet.

Behavioral modification, environmental modification, and training protocols are discussed and/or demonstrated by one of their skilled behavioral technicians. Treatment recommended by Veterinary Behavior Consultations often includes the use of nutraceuticals, pheromones, and/or behavioral medications to reduce fear, anxiety, and stress and help facilitate learning.

A majority of cases seen on referral at Veterinary Behavior Consultations will incorporate behavioral supplements and/or conventional medicines as a component of their treatment, the doctors say. "Medications and supplements when combined with behavioral and environmental medication can expedite learning and vastly improve behavioral outcomes," say Drs. Kenneth Martin and Debbie Martin. "They are unlikely to be effective as a sole option

therapy and are recommended to be combined with behavioral and environmental modification."

The Veterinary Behavior Consultation doctors say it should be noted that any products or devices meant to inhibit or punish behavior should be avoided. "Corrections and punishment, although they can inhibit behavior, do not treat the underlying condition or motivation and will increase fear, anxiety, and stress in pets. When recommending products or referring clients to behavioral services, it is imperative that the approach is a positive one designed to enhance the physical and emotional welfare of the pet and pet owners."

When it comes to behavioral medicine, a multi-modal approach is thought to be the gold standard when addressing these issues, says Shreves. "Pharmaceuticals, behavioral modification/ training, and supplements are all tools for veterinarians to utilize when addressing behavioral concerns."

Overall says she's a big fan of "better living through chemistry." She uses medications in three contexts involving basic veterinary exams:

- **1.** To give before the visit so that the patient is calmer and happier. "We often start these 2-3 days before the exam."
- **2.** To give during the visit if the patients becomes distressed. "so that we can achieve an anamnestic effect and not contribute to creating fear of the vet's."
- 3. To give to the patient after the exam if they are still a bit worried or don't like travel.



Oral Suspension for Cats Veraflox (pradofloxacin) Oral Suspension for Cats 25 ma/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 hone 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. 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 fluoroguinolones 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 immunedeficiency 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

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Industry NEWS





Revised AVMA policy urges pet insurance education

The American Veterinary Medical Association House of Delegates approved a policy change elevating pet health insurance from simply being endorsed by the AVMA to being recognized as a financial resource deserving of client education, Today's Veterinary Business (also published by NAVC) reports. The resolution specifically recommends that doctors "proactively educate" clients - a phrase some members of the approval committee felt went too far. But one stakeholder said the word "proactive" is important, because it can include something as simple as asking clients about their pet insurance, opening the door for conversation. The House of Delegates also approved minor changes to other policies and asked the Council on Veterinary Services to review a resolution declaring sexual harassment a "serious issue" in the veterinary profession.

Hill's announces \$20M expansion of pet nutrition center

Hill's Pet Nutrition held a groundbreaking ceremony for a new \$20 million, 25,000 square foot nutrition facility focused on small dog needs, as well as a new center for veterinarian and other caregiver engagement, the company announced. The nutrition center will house 80 small dogs who will receive formulated diets as part of the company's research. The engagement center will have space dedicated to educational seminars and continuing education programs. "All around the world, there's a steady increase in the popularity of small dogs," said David Baloga, vice president of science and technology at Hill's. "Our investment in this specialized facility will help us develop food with the taste and aesthetics that small dogs prefer and that works best with their distinctive behaviors and unique physiology." According to the announcement, more than half of U.S. dogs are small and miniature, and that percentage is increasing. Small dogs have unique needs compared to larger dogs — their small stomachs mean they graze throughout the day, rather than eating one or two big meals. They also have a higher mass-specific metabolism, pound for pound, so they eat more than big dogs.

Veterinarians warn pet owners about dangers of vaping for pets

Wisconsin veterinarians are warning pet owners about the dangers of vaping for animals, Channel 3000 reports. Doctors examined a dog at a Middleton, Wisconsin, clinic after it ate a marijuana vape device. "It seemed like a very typical marijuana ingestion. The dog seemed pretty severely affected," said Tristan Daugherty-Leiter, an emergency veterinarian at the clinic. Veterinarians say little research is available on how vaping affects small animals, making it difficult to predict side effects. Daugherty-Leiter said the side effects pets might experience in a toxic overdose are tremors, salivation, diarrhea, high heart rates, cardiac arrhythmias, seizures and death. "The concern and the problem is that with any of these vaping liquids, the concentration is just an absolute mystery," said Daugherty-Leiter, adding that "you have no idea how much they got, you have no idea in terms of what the dose the dog may have gotten, how long this might last." Another veterinarian warned that vaping chemicals and oils in the air could also affect pets. Even if vaping is banned, veterinarians predict they'll keep seeing toxic ingestion.

Press Herald: Investor lawsuit sours promise of Covetrus

The Portland, Maine-based Press Herald recently examined an investor lawsuit against Covetrus, a Portland-based veterinary technology and services firm. The investor lawsuit filed in September accuses the company of securities fraud. Filed Sept. 30 in U.S. District Court for the Eastern District of New York, the legal complaint describes Covetrus' initial public offering as a poorly planned debacle by a disjointed company fraught with financial and operational challenges that its executives attempted to downplay or hide from investors to generate positive interest, according to the report. After forming from the merger of Portland-based Vets First Choice and Melville, New York-based Henry Schein Animal Health, the company's Aug. 13 earnings release for its first full quarter of operation fell far short of analyst expectations and led to a stock sell-off that slashed the company's share value by 40 percent in a single day. Read the full article at: https://www.pressherald.com/2019/10/13/investor-lawsuitlifts-curtain-on-portland-based-covetrus-disastrous-launch/





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vetsulin®

Intervet/Merck Animal Health

(porcine insulin zinc suspension) NADA 141-236, Approved by FDA

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

DESCRIPTION

vetsulin® is a sterile aqueous zinc suspension of purified porcine insulin. Each mL contains:

purified porcine insulin (35% amorphous and 65% crystalline)	40 IU
Zinc (as chloride)	0.08 mg
Sodium acetate trihydrate	1.36 mg
Sodium chloride	7.0 mg
Methylparaben (preservative)	1.0 mg

pH is adjusted with hydrochloric acid and/or sodium hydroxide.

vetsulin® (porcine insulin zinc suspension) is indicated for the reduction of hyperglycemia and hyperglycemia-associated clinical signs in dogs and cats with diabetes mellitus.

DOSAGE AND ADMINISTRATION

FOR SUBCUTANEOUS INJECTION IN DOGS AND CATS ONLY

Vials: USE OF A SYRINGE OTHER THAN A U-40 SYRINGE WILL RESULT IN CORRECT DOSING.

Shake the vial thoroughly until a homogeneous, uniformly milky suspension is obtained. Foam on the surface of the suspension formed during shaking should be allowed to disperse before the product is used and, if required, the product should be gently mixed to maintain a homogeneous, uniformly milky suspension before use. Clumps or white particles can form in insulin suspensions: do not use the product if visible clumps or white particles persist after shaking thoroughly.

Cartridges: VETSULIN® CARTRIDGES SHOULD BE USED EXCLUSIVELY WITH VETPEN™ AND 29G/12 MM PEN NEEDLES. Prior to loading vetsulin® cartridges, shake the cartridge until a homogeneous, uniformly milky suspension is obtained. Clumps or white particles can form in insulin suspensions: do not use the product if visible clumps or white particles persist after shaking.

The detailed instructions for use provided with VetPen™ should be strictly followed

The injection should be administered subcutaneously, 2 to 5 cm (3/4 to 2 in) from the dorsal midline, varying from behind the scapulae to the mid-lumbar region and alternating sides

Always provide the Owner Information Sheet with each prescription.

Dogs

The initial recommended vetsulin® dose is 0.5 IU insulin/kg body weight. Initially, this dose should be given once daily concurrently with, or right after a meal

Twice daily therapy should be initiated if the duration of insulin action is determined to be inadequate. If twice daily treatment is initiated, the two doses should each be 25% less than the once daily dose required to attain an acceptable nadir. For example, if a dog receiving 20 units of vetsulin® once daily has an acceptable nadir but inadequate duration of activity, the vetsulin® dose should be changed to 15 units twice daily.

The veterinarian should re-evaluate the dog at appropriate intervals and adjust the dose based on clinical signs, urinalysis results, and glucose curve values until adequate glycemic control has been attained. Further adjustments in dosage may be necessary with changes in the dog's diet, body weight, or concomitant medication, or if the dog develops concurrent infection, inflammation, neoplasia, or an additional endocrine or other medical disorder.

The initial recommended dose in cats is 1 to 2 IU per injection. The injections should be given twice daily at approximately 12 hour intervals. For cats fed twice daily, the injections should be given concurrently with, or right after each meal. For cats fed ad libitum, no change in feeding schedule is neede

The veterinarian should re-evaluate the cat at appropriate intervals and adjust the dose based on clinical signs, urinalysis results, and glucose curve values until adequate glycemic control has been attained. Further adjustments in dosage may be necessary with changes in the cat's diet, body weight, or concomitant medication, or if the cat develops concurrent infection, inflammation, neoplasia, or an additional endocrine or other medical disorder.

CONTRAINDICATIONS

Dogs and cats known to have a systemic allergy to pork or pork products should not be treated with vetsulin®. vetsulin® is contraindicated during periods of hypoglycemia

WARNINGS

User Safety: For use in animals only. Keep out of the reach of children. Avoid contact with eyes. In case of contact, immediately flush eyes with copious amounts of water for 15 minutes. Accidental injection may cause clinical hypoglycemia. In case of accidental injection, seek medical attention immediately. Exposure to product may induce a local or systemic allergic reaction in sensitized

Animal Safety: Owners should be advised to observe for signs of hypoglycemia (see Owner Information Sheet). Use of this product, even at established doses, has been associated with hypoglycemia. An animal with signs of hypoglycemia should be treated immediately. Glucose should be given orally or intravenously as dictated by clinical signs. Insulin should be temporarily withheld and, subsequently, the dosage should be adjusted, if indicated. Any change in insulin should be made cautiously and only under a veterinarian's supervision. Changes in insulin strength, manufacturer, type, species (animal, human) or method of manufacture (rDNA versus animal-source insulin) may result in the need for a change in dosage

Appropriate diagnostic tests should be performed to rule out endocrinopathies in pets that are difficult to regulate (e.g., hyperadrenocorticism in dogs and

hyperthyroidism in cats).

PRECAUTIONS

Animals presenting with severe ketoacidosis, anorexia, lethargy, and/or vomiting should be stabilized with short-acting insulin and appropriate supportive therapy until their condition is stabilized. As with all insulin products, careful patient monitoring for hypoglycemia and hyperglycemia are essential to attain and maintain adequate glycemic control and prevent associated complications. Overdosage can result in profound hypoglycemia and death. Progestogens, certain endocrinopathies, and glucocorticoids can have an antagonistic effect on insulin activity. Intact bitches should be ovariohysterectomized.

Progestogen and glucocorticoid use should be avoided

Drug Interactions:

In the US clinical effectiveness studies, dogs and cats received various medications while being treated with vetsulin® including antimicrobials, antivirals, antifungals, antihistamines, analgesics, anesthetics/tranquilizers, diuretics, bronchodilators, corticosteroids (cats), NSAIDs, thyroid hormone supplementation, hyperthyroid medication (methimazole), internal and external parasiticides, anti-emetics, dermatological topical treatments and oral supplements, ophthalmic preparations containing antimicrobials and antiinflammatories, and variou vaccines. No medication interactions were reported. This drug was not studied in dogs receiving corticosteroids.

Reproductive Safety: The safety and effectiveness of vetsulin® in breeding, pregnant, and lactating dogs and cats has not been evaluated.

Use in puppies and kittens: The safety and effectiveness of vetsulin® in puppies and kittens has not been evaluated.

ADVERSE REACTIONS

Dogs

In the field effectiveness and safety study, 66 dogs were treated with vetsulin®. Sixty-two dogs were included in the assessment of safety. Hypoglycemia (defined as blood glucose < 50 mg/dL) with or without associated clinical signs occurrer in 35.5% (22/62) of the dogs at various times during the study. Clinical signs of hypoglycemia were generally mild in nature (described as weakness, lethargy, stumbling, falling down, and/or depression). Disorientation and collapse were reported less frequently and occurred in 16.1% (10/62) of the dogs. Two dogs had a seizure and one dog died during the seizure. Although never confirmed, the presumptive diagnosis was hypoglycemia-induced seizures. In the rest of the dogs, hypoglycemia resolved with appropriate therapy and adjustments in insulin dosage. Seven owners recorded the following observations about the injection site on the home monitoring forms: swollen, painful, sore, and a bleb under the skin

The following clinical observations occurred in the field study following treatment with vetsulin® and may be directly attributed to the drug or may be secondary to the diabetic state or other underlying conditions in the dogs: hematuria, vomiting, diarrhea, pancreatitis, non-specific hepatopathy/pancreatitis, development of cataracts, and urinary tract infections

In a 21-day field safety and effectiveness study, 40 dogs, already well controlled ma 2 - Day heur sarry and er nez winess study, voluge, an early were controlled on versulin[®], were administered versulin[®] using a VetPen[®] insulin pen loaded with a pre-filled 2.7 mL vetsulin[®] cartridge and 29 gauge/12 mm pen needles. All dogs enrolled in the study were evaluated for safety. Loss of diabetic control was reported in 10 dogs, 3 of which were withdrawn from the study. Four dogs' loss of control resolved after dose adjustment while still using the insulin pen. For the remaining 3 dogs, the loss of diabetic control was reported at the end of the study and outcome was not documented. Two dogs had injection site reactions: edema in one dog and two instances of crusting in another. Poor appetite and weight loss was reported in one dog.

In a field effectiveness and safety study, safety data was reported for 78 cats receiving vetsulin®. Hypoglycemia (defined as blood glucose < 50 mg/dL) was reported in 61 cats (88 total incidences). Fifteen of the occurrences (involving 13 cats) were associated with clinical signs described as lethargy, diarrhea, decreased appetite/anorexia, vomiting, and hypothermia. One cat had seizures following accidental overdosing by the owner and again during the subsequent dose adjustment period. The cat responded to supportive therapy and had no further hypoglycemic episodes. In all cases of hypoglycemia, the clinical signs resolved following symptomatic treatment and/or dose adjustment. Polyneuropathy was reported in 4 cats. Two injection site reactions were reported: one as a mildly thickened subcutaneous tissue reaction and the second as a mild bruising.

The following clinical observations occurred in the field study following treatment with vetsulin® and may be directly attributed to the drug or may be secondary to the diabetic state or other underlying conditions in the cats: vomiting, lethargy, diarrhea, decreased appetite/anorexia, pancreatitis, dermal events, respiratory disease, urinary tract disorder, renal disease, dehydration, weight loss, polydipsia polyuria, behavioral change, and ocular discharge/conjunctivitis. In a smaller field effectiveness and safety study, 14 cats were treated with vetsulin®. Hypoglycemia was reported in 6 cats (8 total occurrences). Lethargy not associated with hypoglycemia was reported in 4 cats (6 total occurrences). The following clinical observations occurred in the field study following treatment with vetsulin® and may be directly attributed to the drug or may be secondary to the diabetic state or other underlying conditions in the cats: foul odor to stool, diarrhea, dull coat, rapid, shallow breathing, stiff gate in rear, gallop rhythm, and pruritus with alopecia.

During the 1998-2007 period, the following adverse events in 50 cats treated with porcine insulin zinc suspension were reported to Intervet International and Intervet Inc: Death, seizures, lack of effectiveness/dysregulation, hypoglycemia, allergic or skin reaction, lethargy, vomiting/diarrhea, injection pain, hyperthermia, nystagmus, PU/PD, and abnormal behavior

In a 21-day field safety and effectiveness study, 36 cats, already well controlled on vetsulin®, were administered vetsulin® using a VetPen™ insulin pen loaded with a pre-filled 2.7 mL vetsulin® cartridge and 29 gauge/12 mm pen needles. Loss of diabetic control was reported in three cats all of which resolved after dose adjustment while still using the insulin pen. Hypoglycemia was reported in one cat. The cat recovered with supportive care and dose adjustment.

To report suspected adverse drug experiences, call Merck at 1-800-224-5318.

For additional information about adverse drug experience reporting for animal drugs, contact FDA at 1-888-FDA-VETS, or http://www.fda.gov/AnimalVeterinary/

GENERAL PHARMACOLOGY

vetsulin® is a mixture of amorphous and crystalline insulin resulting in immediate and prolonged insulin activity. In dogs, vetsulin® may show two peaks of activity. In a laboratory study, 12 healthy adult Beagles were administered vetsulin® at a

dose of 0.5 IU/kg. The onset of activity varied from 0.5 to 2 hours; the time to peak activity varied from 1 to 10 hours; and the duration of activity varied from 10 to 24 $\,$ hours. In diabetic dogs, vetsulin® has two peaks of activity following subcutaneous administration (the first occurs at 2 to 6 hours and the second at 8 to 14 hours). The duration of activity varies between 14 and 24 hours.

In cats, vetsulin® has a single peak of activity. In a laboratory study, 12 healthy adult cats were administered vetsulin® at a dose of 0.5 IU/kg. The onset of activity varied from 0.5 to 2 hours; the time to peak activity varied from 2 to 6 hours; and the duration of activity varied from 8 to 24 hours. In diabetic cats, the peak activity following subcutaneous administration of vetsulin® occurs between 1.5 and 8 hours, and the duration of activity varies between 8 and 12 hours.

The peak(s) of activity, duration of activity, and dose required to adequately control diabetic signs vary between individuals and may vary in the same individual from day to day. The time ranges should only be considered as initial guidelines.

 ${\bf Dogs}$ A total of 66 client-owned dogs were enrolled in and 53 completed the effectiveness and safety field study. The dogs completing the study included 22 breeds of purebred and various mixed breed dogs ranging in age from 4.8 to 14 years, and ranging in weight from 4.2 to 51.3 kg. Of the dogs completing the study, 25 were spayed females and 28 were male (21 neutered and 7 intact)

Dogs were started on vetsulin® at a dose of 1 IU/kg plus a body weight-dependent dose supplement once daily. The initial treatment time to reach acceptable glycemic control (Dose determination period) ranged from 5 to 151 days. Dogs were evaluated for treatment effectiveness three times at 30-day intervals (Study Period). The blood glucose curve means and mean nadirs were compared pre- and post-treatment to assess effectiveness. Glycemic control was considered adequate if an acceptable blood glucose curve was achieved (reduction in hyperglycemia and a nadir of 60 - 160 mg/dL), clinical signs of hyperglycemia (polyuria, polydipsia, and ketonuria) were improved, and hypoglycemia (blood glucose < 50 mg/dL) was avoided. The blood glucose curve mean was reduced from 370 mg/dL pre-treatment to 151 mg/dL, 185 mg/dL, and 184 mg/dL at the three treatment period evaluations. The blood glucose mean nadir was reduced from 315 mg/dL pre-treatment to 93 mg/dL, 120 mg/dL, and 119 mg/dL at the three treatment period evaluations. Sixty days after an adequate vetsulin® dose was initially established, 94%, 96% and 83% of study dogs experienced a reduction in polyuria, polydipsia, and ketonuria, respectively. Investigators reported adequate glycemic control an average of 81% of the time during the Study Period.

In a 21-day field safety and effectiveness study, 40 dogs, already well controlled on vetsulin®, were administered vetsulin® using a VetPen™ insulin pen loaded with a pre-filled 2.7 mL vetsulin® cartridge and 29 gauge/12 mm pen needles. Thirty-eight of 40 dogs were evaluated for effectiveness. Thirty-seven of the 38 owners (97.4%) said they were able to learn how to use the pen. Thirty-five of the 38 owners (92.1%) said the pen was well tolerated by the dogs. For 34 of the 38 dogs (89.5%), the investigators said that the diabetes was not negatively affected by the use of the pen.

A total of 85 client-owned cats (53 males and 25 females-all neutered) of various breeds were enrolled in a 60 day field effectiveness and safety study with continued use up to Day 180. Seven cats were removed from the study prior to the Day 7 evaluation. The remaining cats ranged in age from 3 to 17.5 years and in weight from 1.9 to 10.8 kg. Seventy-two cats completed the study to Day 60 and 66 cats completed to Day 180. The cats were started on vetsulin® at an initial dose of 1 to 2 IU insulin twice daily. Scheduled evaluations occurred at Days 7, 14, 30, 60, and 180. Dose adjustments were allowed at and between the evaluations Effectiveness was based on blood glucose curve mean, blood glucose nadir and improvement in clinical signs. Blood glucose curve means decreased from 394 mg/dL on Day 0 to 217 mg/dL on Day 60. The mean blood glucose nadir decreased from 343 mg/dL on Day 0 to 146 mg/dL on Day 60. Fourteen client-owned cats (10 males and 4 females-all neutered) of various breeds were enrolled in a 60 day effectiveness and safety field study. The cats ranged in age from 5 to 14 years and in weight from 3.40 to 6.97 kg. Twelve cats completed the study. The cats were started on vetsulin® at an initial dose of 1 to 2 IU insulin twice daily. Scheduled evaluations occurred at Days 7, 14, 30, and 60. Dose adjustments were allowed at and between the evaluations. The blood glucose curve means decreased from 354 mg/dL on Day 0 to 162 mg/dL on Day 60. The mean blood glucose nadir decreased from 321 mg/dL on Day 0 to 99 mg/dL on Day 60.

In a 21-day field safety and effectiveness study, 36 cats, already well controlled on vetsulin®, were administered vetsulin® using a VetPen™ insulin pen loaded with a pre-filled 2.7 mL vetsulin® cartridge and 29 gauge/12 mm pen needles. Thirty-six owners (100%) said they were able to learn how to use the pen. Thirty-four owners (94.4%) said the pen was well tolerated by the cats. For thirty-five cats (97.2%). the investigators said that the diabetes was not negatively affected by the use of the pen.

HOW SUPPLIED

vetsulin® is supplied as a sterile injectable suspension in multidose vials containing 10 mL of 40 IU/mL porcine insulin zinc suspension or in multidose cartridges containing 2.7 mL of 40 IU/mL porcine insulin zinc suspension. Vials are supplied in cartons of one, 10 mL vial. Cartridges are supplied in cartons of 10, 2.7 mL

STORAGE CONDITIONS

Store in an upright position under refrigeration at 2°C to 8°C (36°F to 46°F). Do not freeze. Protect from light. The loaded VetPen™ can be stored on its side.

Use contents within 42 days of first puncture.

Additional information about vetsulin®, VetPen™, and diabetes mellitus can be found at www.vetsulin.com

Distributed by: Intervet Inc (d/b/a Merck Animal Health), Madison, NJ 07940

Made in Germany

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