

# TVC

Digital magazine

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## Providing Proper Nutrition

Royal Canin's new liquid diets  
meet the nutritional needs  
for hospitalized patients





# NO TIME TO WASTE WHEN CARE IS CRITICAL



## NUTRITIONAL SUPPORT CAN SPEED UP RECOVERY AND IMPROVE PATIENT OUTCOMES\*

Introducing the most comprehensive range of liquid diets designed for tube feeding.

### ✓ EASY TO USE

Start feeding in less than a minute—no mixing, reconstituting or blenderizing for NE and NG tubes

### ✓ INNOVATIVE CAP DESIGN

Specialized cap for quick and easy syringe withdrawal and usage

### ✓ CRITICAL NUTRITION

Also includes EPA+DHA and an antioxidant complex

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

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# What is a Co-op?

By Bryan Munson, Director of Vendor Relations

**Benjamin Franklin was the inventor of many things – the lightning rod, bifocal glasses, a glass harmonica, the Franklin stove.** He also gets credit for starting the nation's first cooperative. In 1752, he founded The Philadelphia Contributionship for the Insurance of Houses from Loss. It's still in business today.

To be an effective contributor to its community, cooperative membership reflects the community in racial composition, gender, age, and abilities, and historically excluded communities and individuals have a voice and leadership opportunities.

Other co-op concepts grew out of that, including insurance co-ops, local and national credit unions, utility co-ops, food and grocery, as well as housing. These co-ops were able to achieve scale because their members believed in their purpose, and used their exclusive services to their benefit. Today, thousands of small businesses across a myriad of industries enjoy the benefits of being in a co-op.

What are those benefits? The most obvious are financial. When a co-op is efficient, it's able to go to vendors and convince them to offer more lucrative programs because of the co-op's purchasing power through its membership buy-in. You've seen this at work in your own practices with the TVC exclusive vendor programs and services.

However, sometimes we get so focused on rebates and discounts that we may miss other intrinsic benefits

of a co-op. To better understand co-ops and their link to healthy, equitable and sustainable communities, the National Cooperative Business Association (CLUSA) and the Cooperative Development Foundation have been working with the Urban Institute to develop a shared framework for assessing impact – on cooperative enterprises, their members and the communities they serve. Their research surfaced seven key areas of impact where cooperatives can be thoroughly assessed in the extent to which they promote social and economic opportunity, which they examined in a report: "Co-ops Matter: The ABCs of Co-op Impact." Those key areas included:

**Access:** A cooperative can increase access to affordable quality products, services, suppliers, and markets, lowering costs and serving markets and communities historically seen as "higher risk" or underserved.

**Business sustainability:** A cooperative business structure can increase



firm survival and profitability through higher and less volatile revenues, lower costs, and a focus on long-term outcomes, including scaling the cooperative to compete with multinational corporations.

**Community commitment:** A community-focused cooperative is committed to being a good neighbor through education, financial support, facility use, and business practices that reflect the values of the community.

**Democratic governance and empowerment:** In a well-functioning cooperative, membership actively participates and shapes the mission and decisions of the organization, which translates into broader civic and political involvement.

**Equity, diversity, and inclusion:** To be an effective contributor to its community, cooperative membership reflects the community in racial composition, gender, age, and abilities, and historically excluded communities and individuals have a voice and leadership opportunities.

**Financial security and advancement for workers:** Cooperatives work best for their members, employees, and communities when they provide living-wage jobs with benefits and increased opportunity for wealth building, career advancement, training, and leadership development with lower turnover and higher job satisfaction.

**Growth:** Cooperatives can be local and regional anchors, promoting

By offering vaccinations to pets, TVC Co-op owners can help limit the spread of disease in their communities for both pets and humans. Healthy pets translate to healthier households for families.

economic growth through stable jobs, high industry standards, consistent services, and economic multiplier effects through increased community investment, local jobs, and local procurement.

To read the full report, visit <https://ncbaclusa.coop/resources/abcs-of-cooperative-impact/>

Indeed, being part of a co-op can benefit the community you serve in a number of ways. “Credit unions can increase community investment by local businesses and consumers via expanded access to credit and savings products,” the report concluded. “Cooperative insurers can boost economic growth through risk mitigation that results in increased community investment. Housing cooperatives can provide increased residential stability, especially limited equity cooperatives, which provide an alternative to renting.”

By offering vaccinations to pets, TVC Co-op owners can help limit the spread of disease in their communities

for both pets and humans. Healthy pets translate to healthier households for families.

Co-ops are good for local communities. They’re also a great source of community for the members themselves. A co-op is a place where independent business owners can engage in best practice discussions and knowledge sharing to improve clinical outcomes, as well as solve business challenges. At TVC, both TVC University and The HIVE are designed as platforms for you to engage other Co-op owners. ■

### TVC News

We have a lot of news to tell you about this month: TVC Central in Chicago is just a couple of weeks away, and we're gearing up for TVC East in Atlanta on September 22! Many of you have already started to RSVP, so for those of you thinking about attending, we encourage you to get your responses in

sooner rather than later! We also have some exciting promos from our vendor partners, as well as a new product and a reward program; you can learn more below in the Vendor News section and in the Promotions section. And, as always, you can check everything out on the TVC Members-only website!

### Vendor News

**Vetoquinol** has introduced a new product – Flexprofen – a beef-flavored chewable carprofen tablet! And they've got a great promo offer to kick it off: Buy 2, get 1 FREE! May 1-July 31, 2019. [Click here to learn more](#)

**ASPCA Pet Health Insurance** has a **FREE Online CE Course For Your Clinic!**

Need some CE credits? Take their free, online CE Course, **"Enhancing Hospital Performance with Pet Insurance."** This .25 hour, RACE-approved course will delve into how economic limitations impact hospital, culture, what clients want in terms of financial discussions, and how pet insurance can be a tool to meet clients' expectations. **Take it today!**

[https://www.aspcapetinsurance.com/veterinarians/continuing-education/?utm\\_source=veterinarians&utm\\_medium=veterinarians&utm\\_campaign=veterinarians](https://www.aspcapetinsurance.com/veterinarians/continuing-education/?utm_source=veterinarians&utm_medium=veterinarians&utm_campaign=veterinarians) TVC April 19

**Petlink** has EXTENDED their **Current User promo** of Buy 50 Petlink SLIM chips, Get 10 FREE through May 31, 2019! May is "Chip Your Pets" month, and May 8 is National Disaster

Preparedness Day, so have your clinic well-stocked with chips and your pet parents educated about how to be prepared and what to do if disaster strikes. Check out the [Petlink vendor page](#) for all kinds of marketing tips, like how to set up a microchipping clinic, and client-facing brochures, as well as a link to their marketing portal. New to Petlink microchips? No problem! They have a year-round **New User special!** The best advantage for your pet parents for the Petlink chips vs. other brands (besides the obvious quality!) – there's no monthly fee! They just pay you for the chip and your insertion fee; nothing else!

**Purina** has introduced a great rewards program for 2019! Get rewarded for connecting pet parents to the appropriate food, supplements, and treats. You'll earn points for every dollar spent on eligible Purina products, with points determined by your tier. Purina will email you a quarterly statement indicating your points balance. Points can be redeemed for all kinds of products – kitchen gadgets, tech, fashion accessories, etc.! Program is Jan. 1 – Dec. 31, 2019. [Click here to learn more](#)

### TVC University Live CE Webinars



**Alfaxalone: An Update in the Advancement of Injectable Anesthesia**  
May 14 | 9 AM & 1 PM (CST)

[Register](#)

Join **Jurox Animal Health** with speaker Dr. Elizabeth Martinez on the May CE Live Online webinar, for a 1-hour RACE-approved presentation. Attendees will earn 1 CE credit and be entered in a drawing to win an Anti-Fatigue Mat for your surgery suite. There will be a lucky winner in both the AM & PM sessions!

**Abstract:** A detailed overview of Alfaxan® Multidose and its clinical application. It explores Alfaxan's science, safety, versatility, and reliability.

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(florfenicol, terbinafine, mometasone furoate)  
Otic Solution



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

CAUTION: Federal (U.S.A.) law restricts this drug to use by or on the order of a licensed veterinarian. CONTRAINDICATIONS: Do not use in dogs with known tympanic membrane perforation. CLARO® is contraindicated in dogs with known or suspected hypersensitivity to florfenicol, terbinafine hydrochloride, or mometasone furoate.

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## TVC University Live CE Webinars (Continued)



### Critical Care Nutrition & Assisted Feeding June 11 | 9 AM & 1 PM (CST)

[Register](#)

Join **Royal Canin** with speaker Dr. Anne Ward at the June 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 a \$100 gift card. There will be **3 lucky winners** in both the AM & PM sessions!

**Abstract:** In this presentation, we will discuss the role of nutritional support in the management of hospitalized companion animal patients. We will explore the consequences of malnutrition in our patients, and understand how these consequences may influence patient outcomes. Participants will gain an increased understanding of metabolic changes that occur during starvation, and learn how to identify appropriate candidates for assisted feeding.

A step-by-step approach to implementation of assisted feeding plans will be discussed including:

- Feeding tube selection
- Calculation of the refeeding volume, rate, and schedule
- Complications
- Diet selection
- Monitoring
- Case examples will be utilized where indicated to illustrate key concepts.



### Food Allergies & Elimination Diets June 18 | 9 AM & 1 PM (CST)

[Register](#)

Join TVC and Hill's Pet Nutrition at the June TVC University Live webinar to learn the importance of elimination diets and how stocking pet food can translate to a boon for your bottom line. All attendees will receive a **\$25 Visa gift card** for attending!

**Abstract:** Sometimes the customer does not know best. The symptoms of food allergies in pets are rather similar to the symptoms of other disorders. For example, the skin irritation could be fleas, the bowel irritation could be spoiled food or some more serious condition. However, you, as the medical professional in the situation, know that these are very common symptoms of food allergy. Is it not better to rule out one possible explanation, both for the sake of the pet and for the peace of mind of both you and the pet parents? In this webinar, we will focus on the importance of elimination diets and how stocking pet food can translate to a boon for your bottom line.



### TBA July 9 | 9 AM & 1 PM (CST)

[Register](#)

Join **VetStem** at the July CE Live Online webinar, for a 1 1/2-hour RACE-approved presentation. Attendees will earn **1.5 CE credits**.

**Abstract:** TBA



INTRODUCING

# ROYAL CANIN® CRITICAL CARE LIQUID DIETS



## **ROYAL CANIN VETERINARY DIET® Canine and Feline RECOVERY® LIQUID**

One formula for both cats and dogs, containing high protein levels as well as high energy density that provides daily energy requirements in a reduced feeding volume.



## **ROYAL CANIN® Feline RENAL SUPPORT LIQUID**

Formulated for cats with renal insufficiency. Contains restricted levels of phosphorus relative to RECOVERY® LIQUID and high energy density.



## **ROYAL CANIN® Canine RENAL SUPPORT LIQUID**

Formulated for dogs with renal insufficiency. Contains restricted levels of phosphorus relative to RECOVERY® LIQUID and very high energy density.



## **ROYAL CANIN® Canine GASTROINTESTINAL LOW FAT™ LIQUID**

Formulated with low levels of fat for dogs that require dietary fat restriction.

Available in a 4-pack of 8 fl oz (237 ml) bottles

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## Conferences (Continued)



[Register](#)

### How to Successfully Build Your Brand

August 13 | 9 AM & 1 PM (CST)

Join **Stratford Pharmaceuticals** at the August CE Live Online webinar, for a 1-hour RACE-approved presentation. Attendees will earn **1 CE credit**.

**Abstract:** In this webinar, we will discuss the benefit of building your clinic's brand. We will review keeping profits in the practice, competing with internet sales, brand recognition, innovative ways to market your clinic. After completing this program, the client will have a better understanding of the benefits of branding the clinic and products we have to increase profits and brand awareness in the practice, thus reinforcing the level of quality care.



[Register](#)

### TVC Central: 2019 Chicago Vet Show

May 13 - 16 | Chicago, IL

Chicagoland Veterinary Conference is a great place to expand your knowledge and grow your network. TVC will be sponsoring a fantastic lineup of speakers and lecture topics you won't want to miss. **TVC Co-Op Owners can receive 10% off of their registration with promo code: TVC2019.**

[Click here](#) for more information on the conference.  
Hope to see you at this great event!



[Register](#)

### TVC East: 2019 TVC CE Conference & Trade Show

September 22 | Atlanta, GA

#### Free CE with TVC!

Join TVC and TVC Vendor partners at our annual Free one-day CE Conference and Trade Show in Atlanta, GA. We will be offering a variety of RACE-approved lectures sponsored by TVC vendor partners, each worth 1 CE credit. There will also be trade show giveaways and a mini Treasure Hunt. The show is **FREE** to TVC Co-Op Owners!

**Trade Show:** TVC is expecting about 25 of our vendor partners to participate in the TVC East Trade Show. In between lectures you will have time to learn more about TVC offerings, rebates, and discount programs, as well as talk directly to our vendor partners about their products and programs that can help you practice better medicine and increase your profitability. Also, take part in the mini Treasure Hunt and enter raffles to win great giveaways!

We hope you'll join us at this great event!



Prescribe

peace of mind.

**Powerful protection can also be gentle:**

- ✓ Safe for puppies as young as 8 weeks of age weighing 4 lbs or more
- ✓ Over 140 million doses of afoxolaner have been prescribed<sup>1</sup>
- ✓ And it's the only flea and tick control product indicated for the prevention of *Borrelia burgdorferi* infections as a direct result of killing *Ixodes scapularis* vector ticks

**NexGard**<sup>®</sup>  
(afoxolaner) Chewables

What one little chew can do

<sup>1</sup>Data on file.



**IMPORTANT SAFETY INFORMATION:** NexGard is for use in dogs only. The most frequently reported adverse reactions include vomiting, pruritus, lethargy, diarrhea 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 or neurologic disorders. For more information, see the full prescribing information or visit [www.NexGardClinic.com](http://www.NexGardClinic.com)

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## Promotions

**Bayer:** Coraxis Consumer Rebate Promo: Tier 1: Purchase 12 units of Coraxis, Get 12 – \$25 Consumer rebates. Tier 2: Purchase 12 units of Coraxis and 12 Seresto collars, Get 12 – \$60 Consumer rebates April 15 – May 31, 2019. [Click here for details.](#)

**BI:** TVC Exclusive Weekly Contest Throughout the Month of May! Each week in May, TVC clinics will have a chance to win \$300, \$150, or \$75 by self-reporting the # of new pet parent purchases of NexGard and HeartGard purchases each week! [Click here for details.](#)

**Ceva:** Purchase 4 MilbeGuard, Get 4 FREE! If the clinic is one of the 1st 200 clinics to purchase, qualify for a chance to win a party chair! [Click here for details.](#)

**Gateway:** Gateway offers FREE supplies, and FREE cremations for employees' pets. Get a one-week free trial. [Click here for details.](#)

**Hill's:** PurrrchasePoints™ Promo: Grow your Hill's online sales over last year and earn TVC PurrrchasePoints™! Hill's will award 5 PurrrchasePoints™ for every \$10 in Hill's online sales through your vet-sponsored online solution, including our partner VetSource or Hill's to Home. This program is now extended throughout the year! [Click here for details.](#)

**Hill's:** New GI Biome Diet: Get 10% off your initial order! Offer available March 1 – June 30, 2019. [Click here for details.](#)

**Hill's Spring Toppings Promo:** Buy 5 Items, Get 1 Case of Canned Food FREE, and receive 20 – \$5 coupons through June 28, 2019! [Click here for details.](#)

**Jurox: Alfaxan Multidose:** Buy 10, Get 2 FREE or Buy 20 Get 4 FREE plus an Anti-Fatigue Mat! Offer available April 1 – May 31, 2019. [Click here for details.](#)

**PetLink (Datamars):** Current User Special EXTENDED through May 31, 2019! Buy 50 Petlink SLIM chips, get 10 FREE! [Click here for details.](#)

**Purina:** 2019 Rewards Program: Earn points for qualifying food, supplements and treats sold to pet parents. Redeem points for all kinds of products, from kitchen gadgets, tech, and fashion accessories! Through December 31, 2019. [Click here for details.](#)

**Securos Surgical:** Buy 1 Instrument Pack, Receive a 10% Discount and Get 2 FREE Boxes of Visipro Suture March 1 – May 31, 2019. [Click here for details.](#)

**Stratford Rx:** Buy 12 Keto products, Get 2 FREE! [Click here for details.](#)

**Vetoquinol:** NEW PRODUCT: Flexprofen Beef-flavored chewable carprofen. Buy 3, Get 1 Free! May 1 – July 31, 2019. [Click here for details.](#)

**Vetoquinol:** Pill Wrap Promo: Buy 10 jars, Get 2 FREE! Through June 28, 2019. [Click here for details.](#)

**Vetoquinol:** Zylkene BOGO Special: Buy 1 30 – count bottle, Get 1 14-count blister pack FREE of same strength! April 1 – June 28, 2019. [Click here for details.](#)

**VetSource:** Q2 TVC Member Perks: Your clients can save 10% at checkout on all prescription and OTC nutrition from Hill's, Purina, and Royal Canin. Also, learn how you can earn PurrrchasePoints™ from Hill's, and enter a contest to win an Amazon gift card from Purina. [Click here for details.](#)

**Zoetis Diagnostics (formerly Abaxis):** Secure Your Savings With Flex 4! Sign-Ups Extended Through May 31, 2019! [Click here for more details.](#)

**MWI:** Exclusive Small Animal Vaccines and Delayed-Billing Promo for TVC! Offer valid May 1, 2019 – June 30, 2019. [Learn more here.](#)

**Merck:** Protect Your Patients from Fleas and Ticks – Mix, Match and Save with Bravecto! Offer valid May 1, 2019 – June 30, 2019. [Learn more here.](#)





**9 OUT OF 10 PET OWNERS PREFER  
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Ask your Merck Animal Health  
representative about Bravecto today  
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(FLURALANER)

\* 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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**MERCK**  
Animal Health

# Providing Proper Nutrition

Royal Canin's new liquid diets meet the nutritional needs for hospitalized patients



**There have been a lot of studies done on hospitalized dogs and cats that look at outcomes and how nutrition fits into their care.** Researchers have studied in depth the survival and recovery times, and just how the patients do once they are in the hospital if they get fed vs. not getting fed, says Catherine Lenox, DVM, DACVN, Scientific Affairs Manager, [Royal Canin](#). “The studies have covered everything from Septic peritonitis, to parvo puppies, to just generalized hospital patients.”

Their conclusion? Nutrition is absolutely critical to the hospitalized animal's health and recovery.

“It's quite remarkable the data that has come out of these studies,” Lenox says. “They show that providing proper nutrition – the proper diet and the proper amount – improves hospital outcomes for cats and dogs.”

[Royal Canin](#) recently announced it is launching a new innovation – four diets geared toward the hospitalized dog or cat:

- **Recovery Liquid:** A higher fat, higher protein option that meets the nutritional needs for both cats and dogs.
- **Gastrointestinal Low Fat Liquid:** For dogs with pancreatitis or other fat sensitivities.
- **Canine Renal Support Liquid and Feline Renal Support Liquid,** for chronic kidney disease, acute kidney injury or liver disease that can't handle protein.

Each liquid diet has several nutritional benefits. The diets are formulated with high energy density, utilizing dietary fat to improve palatability and reduce feeding volumes in inappetent pets when appropriate. A synergistic antioxidant complex also helps fight against oxidative stress.

## Easy to administer

If the veterinary practice is not familiar with placing a tube or tube feedings, Lenox says [Royal Canin](#) has plenty of resources, including continuing education, to help practices feel more comfortable with actually providing that nutritional support for their patients if they are very sick. One resource is an innovative 3D printed dog or cat model. Practitioners can use these models to practice placing a nasal feeding tube before they have to do it in a pet. “We've been bringing these models to conferences and veterinary schools and other training situations so if someone doesn't feel 100 percent comfortable placing a tube they can practice in advance. You definitely want to get a little bit of experience before you do it in a pet.”

“We've been bringing these models to conferences and veterinary schools and other training situations so if someone doesn't feel 100 percent comfortable placing a tube they can practice in advance. You definitely want to get a little bit of experience before you do it in a pet.”

The diets are designed to be fed undiluted through any type of tube, whether it be nasal, stomach, esophageal, etc. Lenox says the procedure to place a nasoesophageal or nasogastric tube isn't technically difficult. “It's something the general practitioners can do,” she says. “It's not a procedure that I would reserve for specialists.”

For ease of use, the containers have a special cap. You can stick a syringe tip directly into the cap, turn the bottle upside down, and draw directly from the syringe. “It's very efficient and easy for technicians and doctors to draw up into the syringe,” Lenox says. “Practitioners don't have to worry about mixing or blenderizing. You don't even have to open the bottle, you just stick the syringe directly into it.”

## Meeting a market need

The liquid diets are intended to meet a shortage of options for veterinary practices when it comes to proper nutrition for hospitalized pets. There are not a lot of cat and dog products out there that are available for tube feeding, says Lenox.

“Some people are using liquid diets intended for humans, and that may not meet the nutritional needs of cats and dogs. The fact we're launching this product – and not just one product but an entire line – puts the cat and dog first.” ■





# Barriers to Veterinary Care

Recent study identifies the need for better solutions that allow more people to obtain veterinary care

In the past two years, nearly 28 percent of households experienced barriers to veterinary care, according to a national population survey conducted by the [Access to Veterinary Care Coalition](#), a partnership of for-profit and nonprofit veterinary service providers, animal welfare and social service professionals, and educators, working in collaboration with the University of Tennessee, Knoxville's College of Social Work.

The study was commissioned through a grant from Mad-die's Fund, a national family foundation created by Dave and Cheryl Duffield to revolutionize the status and well-being of companion animals, to better understand the barriers faced by pet owners across the socioeconomic spectrum.

The coalition's report, *Access to Veterinary Care: Barriers, Current Practices, and Public Policy*, identifies the need for better solutions that allow more people to obtain veterinary care. The study also sought to understand the knowledge, attitudes, and practices veterinarians have regarding access to care.

Among the report's findings:

- Dogs and cats living in lower-income households and with younger pet owners are most at risk for not receiving recommended care.
- The overwhelming barrier for all groups of pet owners and all types of care is financial, with 80 percent unable to obtain preventative care due to financial constraints, 74 percent for sick care, and 56 percent for emergency care.

- Veterinary service providers recognize the severity of the problem and feel a commitment to explore ways to address it. The highest level of agreement expressed by veterinarians in the survey was in response to the statement: "All pets deserve some level of veterinary care." Almost all respondents – 95 percent – either agreed or strongly agreed with the statement.
- Nearly nine out of 10 respondents indicated they agreed or strongly agreed that owned pets are a member of the family. Similarly, 87 percent agreed that not being able to obtain needed veterinary care impacts the owner's mental and emotional health.

"Lack of access to veterinary care is a complex societal problem with many causes," said Michael Blackwell, chairman of the coalition, veterinarian, former dean of UT's College of Veterinary Medicine, and director of the Program for Pet Health Equity. "This report furthers our understanding of these complex and interrelated issues and can guide stakeholders in the development of solutions to reach underserved families with pets. Barriers to veterinary care can be mitigated through determined effort and better alignment of existing resources to achieve this outcome."

For more information or to download the study, visit <https://avcc.utk.edu/> ■





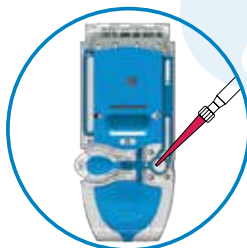
## i-STAT Alinity v

### Proven Technology - Now More Intuitive Than Ever

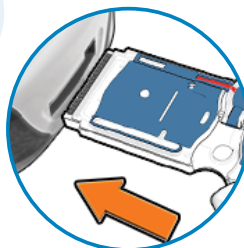
The i-STAT Alinity v is an advanced, easy-to-use, portable analyzer that delivers real-time, lab-quality results from 2-3 drops of whole blood in 2-3 minutes - making it the ideal solution for critical care situations, emergency hospitals, exotic animals, and research needs at the point-of-care.

Built on the proven technology of the i-STAT, the i-STAT Alinity v analyzer delivers accurate results for blood gases, electrolytes, chemistries and hematology. It provides important information needed to monitor and evaluate chronic disease and pre-anesthetic patients and provide diagnostic specialty testing information for ill patients.

#### Simple Operation



1 Fill cartridge to fill line.



2 Insert cartridge.



3 Read results on screen in 2-3 minutes.

### i-STAT Alinity v Cartridge Test Menu

The i-STAT Alinity v uses a wide range of disposable, single-use cartridges that contain the necessary reagents to provide reference lab quality results, while improving efficiency throughout the animal health continuum of care.

		CG4+	CG8+	G	Crea	6+	CHEM8+	EC8+
Hematology	Hematocrit (Hct)		•			•	•	•
	Hemoglobin (Hb)*		•			•	•	•
Chemistry	Blood Urea Nitrogen (BUN)					•	•	•
	Creatinine (Crea)				•		•	
	Ionized Calcium (iCa)		•				•	
	Glucose (Glu)		•	•		•	•	•
Electrolytes	Chloride (Cl)					•	•	•
	Sodium (Na)		•			•	•	•
	Potassium (K)		•			•	•	•
Acid Base	pH	•	•					•
	Partial Pressure Carbon Dioxide (PCO <sub>2</sub> )	•	•					•
	Bicarbonate (HCO <sub>3</sub> )*	•	•					•
	Total Carbon Dioxide (TCO <sub>2</sub> )*	•	•				•	•
	Anion Gap (AnGap)*						•	•
	Base Excess (BE)*	•	•					•
Blood Gas	Partial Pressure of Oxygen (PO <sub>2</sub> )	•	•					
	Oxygen Saturation (sO <sub>2</sub> )*	•	•					
Specialty	Lactate (Lac)	•						

\*Calculated Value

# Industry NEWS

## Royal Canin launches podcast for veterinarians

Royal Canin announced the launch of a new podcast series, “Vet Talk with [Royal Canin](#),” to address a wide variety of topics of interest for veterinarians and veterinary clinics. The podcast features discussions with some of the industry’s top veterinarians and aims to create a dialogue to help veterinarians address the issues they face every day.

“For more than 50 years, [Royal Canin](#) has been a committed partner of veterinary professionals across the world, and Vet Talk with [Royal Canin](#) is another opportunity to help facilitate conversation within the veterinary community,” said Dr. Brent Mayabb, Chief Veterinary Officer and Vice President of Corporate Affairs at [Royal Canin](#). “We understand that today’s veterinarians face a landscape with a unique set of both challenges and opportunities, and we developed this podcast series to have an open, candid discussion on some of these topics.”

The first episode of the series, “How to Have Uncomfortable Conversations with Pet Owners,” features guest veterinarians, Dr. Andy Roark and Dr. Megan Hill, as they offer various ways veterinarians can broach difficult topics with pet owners, including pet obesity. Other episodes will focus on how to find happiness and stay positive as a veterinary professional, nutritional myths, and the future of the industry.

Vet Talk with [Royal Canin](#) provides discussions, including tips, about the most common challenges veterinarians face. Vet Talk with [Royal Canin](#) is available at <https://my.royalcanin.com/podcasts> and on [iTunes](#), [Google Play](#), [Spotify](#), and [Stitcher](#).

**CLARO®****(florfenicol, terbinafine, mometasone furoate)  
Otic Solution**Antibacterial, antifungal, and anti-inflammatory  
For Otic Use in Dogs Only**CAUTION:** Federal (U.S.A.) law restricts this drug to use by or on the order of a licensed veterinarian.**DESCRIPTION:**

CLARO® contains 16.6 mg/mL florfenicol, 14.8 mg/mL terbinafine (equivalent to 16.6 mg/mL terbinafine hydrochloride) and 2.2 mg/mL mometasone furoate. Inactive ingredients include purified water, propylene carbonate, propylene glycol, ethyl alcohol, and polyethylene glycol.

**INDICATIONS:**CLARO® is indicated for the treatment of otitis externa in dogs associated with susceptible strains of yeast (*Malassezia pachydermatis*) and bacteria (*Staphylococcus pseudintermedius*).**DOSAGE AND ADMINISTRATION:****Shake before use.****CLARO® should be administered by veterinary personnel.**

Administer one dose (1 dropperette) per affected ear. The duration of effect should last 30 days.

1. Clean and dry the external ear canal before administering the product.
2. Verify the tympanic membrane is intact prior to administration.
3. Remove single dose dropperette from the package.
4. While holding the dropperette in an upright position, remove the cap from the dropperette.
5. Turn the cap over and push the other end of the cap onto the tip of the dropperette.
6. Twist the cap to break the seal and then remove cap from the dropperette.
7. Screw the applicator nozzle onto the dropperette.
8. Insert the tapered tip of the dropperette into the affected external ear canal and squeeze to instill the entire contents (1 mL) into the affected ear.
9. Gently massage the base of the ear to allow distribution of the solution.
10. Repeat with other ear as prescribed.

Cleaning the ear after dosing may affect product effectiveness.

**CONTRAINDICATIONS:**Do not use in dogs with known tympanic membrane perforation (see **PRECAUTIONS**). CLARO® is contraindicated in dogs with known or suspected hypersensitivity to florfenicol, terbinafine hydrochloride, or mometasone furoate.**WARNINGS:****Human Warnings:** Not for use in humans. Keep this and all drugs out of reach of children. In case of accidental ingestion by humans, contact a physician immediately. In case of accidental skin contact, wash area thoroughly with water. Avoid contact with eyes. Humans with known hypersensitivity to florfenicol, terbinafine hydrochloride, or mometasone furoate should not handle this product.**PRECAUTIONS:**

Do not administer orally.

The use of CLARO® in dogs with perforated tympanic membranes has not been evaluated. The integrity of the tympanic membrane should be confirmed before administering the product. Reevaluate the dog if hearing loss or signs of vestibular dysfunction are observed during treatment. Use of topical corticosteroids has been associated with adrenocortical suppression and iatrogenic hyperadrenocorticism in dogs (see **ANIMAL SAFETY**).Use with caution in dogs with impaired hepatic function (see **ANIMAL SAFETY**).

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

**ADVERSE REACTIONS:**In a field study conducted in the United States (see **EFFECTIVENESS**), there were no directly attributable adverse reactions in 146 dogs administered CLARO®.

To report suspected adverse drug events and/or obtain a copy of the Safety Data Sheet (SDS) or for technical assistance, contact Bayer HealthCare at 1-800-422-9874.

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>.**PHARMACOLOGY:**

CLARO® Otic Solution is a fixed combination of three active substances: florfenicol (antibacterial), terbinafine (antifungal), and mometasone furoate (steroidal anti-inflammatory). Florfenicol is a bacteriostatic antibiotic which acts by inhibiting protein synthesis. Terbinafine is an antifungal which selectively inhibits the early synthesis of ergosterol. Mometasone furoate is a glucocorticosteroid with anti-inflammatory activity.

**MICROBIOLOGY:**The compatibility and additive effect of each of the components in CLARO® solution was demonstrated in a component effectiveness and non-interference study. An *in vitro* study of organisms collected from clinical cases of otitis externa in dogs enrolled in the clinical effectiveness study determined that florfenicol and terbinafine hydrochloride inhibit the growth of bacteria and yeast commonly associated with otitis externa in dogs. No consistent synergistic or antagonistic effect of the two antimicrobials was demonstrated. The addition of mometasone furoate to the combination did not impair antimicrobial activity to any clinically significant extent.In a field study (see **EFFECTIVENESS**), at least 10 isolates from successfully treated cases were obtained for *S. pseudintermedius* and *M. pachydermatis*.**EFFECTIVENESS:**In a well-controlled, double-masked field study, CLARO® was evaluated against a vehicle control in 221 dogs with otitis externa. One hundred and forty six dogs were treated with CLARO® and 75 dogs were treated with the vehicle control. All dogs were evaluated for safety. Treatment (1 mL) was administered once on Day 0 to the affected ear(s). Prior to treatment, the ear(s) was cleaned with saline. The dogs were evaluated on Days 0, 7, 14, and 30. Blood work and urinalysis were obtained on Day 0 pre-treatment and Day 30 at study completion. Four clinical signs associated with otitis externa were evaluated: erythema, exudate, swelling, and ulceration. Success was based on clinical improvement at Day 30. Of the 183 dogs included in the effectiveness evaluation, 72.5% of dogs administered CLARO® solution were successfully treated, compared to 11.1% of the dogs in the vehicle-control group ( $p=0.0001$ ).**ANIMAL SAFETY:**

In a target animal safety study, CLARO® was administered aurally to 12-week-old Beagle puppies (4 dogs/sex/group) at 0X, 1X, 3X, and 5X the recommended dose once every 2 weeks for a total dosing period of 28 days (3 times the treatment duration). No clinically relevant treatment-related findings were noted in hearing tests, body weight, weight gain, or food consumption. CLARO® administration was associated with post-treatment ear wetness or clear aural exudate, increased absolute neutrophil count, decreased absolute lymphocyte and eosinophil counts, suppression of the adrenal cortical response to ACTH-stimulation, decreased adrenal weight and atrophy of the adrenal cortex, increased liver weight with hepatocellular enlargement/cytoplasmic change, and decreased thymus weight. Other potentially treatment-related effects included mild changes to AST, total protein, inorganic phosphorus, creatinine, and calcium.

**STORAGE INFORMATION:**

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

**HOW SUPPLIED:**

CLARO® solution is supplied in a single-use dropperette in a blister. Each dropperette contains one 1 mL dose.

CLARO® is available in cartons of two, ten, or twenty dropperettes.

Manufactured for

Bayer HealthCare LLC, Animal Health Division

P.O. Box 390 Shawnee Mission, Kansas 66201 USA.

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NADA 141-440, Approved by FDA  
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SUPPLEMENTS

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\*McGowan, R. T. S. (2016). "Oiling the brain" or "Cultivating the gut": Impact of diet on anxious behavior in dogs. Proceedings of the Nestlé Purina Companion Animal Nutrition Summit, March 31-April 2, Florida, 91-97. Purina trademarks are owned by Société des Produits Nestlé S.A.



**PURINA**

Your Pet, Our Passion®

# 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. NexGard is indicated for the prevention of *Borrelia burgdorferi* infections as a direct result of killing *Ixodes scapularis* vector ticks.

## 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:

Afoxolaner is a member of the isoxazoline class. This class has been associated with neurologic adverse reactions including tremors, ataxia, and seizures. Seizures have been reported in dogs receiving isoxazoline class drugs, even in dogs without a history of seizures. Use with caution in dogs with a history of seizures or neurologic disorders (see **Adverse Reactions** and **Post-Approval Experience**).

The safe use of NexGard in breeding, pregnant or lactating dogs has not been evaluated.

## 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 <sup>1</sup>	% (n=415)	N <sup>2</sup>	% (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

<sup>1</sup>Number of dogs in the afoxolaner treatment group with the identified abnormality.

<sup>2</sup>Number 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.

## Post-Approval Experience (July 2018):

The following adverse events are based on post-approval adverse drug experience reporting. Not all adverse events 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 reported for dogs are listed in decreasing order of reporting frequency for NexGard:

Vomiting, pruritus, lethargy, diarrhea (with and without blood), anorexia, seizure, hyperactivity/restlessness, panting, erythema, ataxia, dermatitis (including rash, papules), allergic reactions (including hives, swelling), and tremors.

## Contact Information:

For a copy of the Safety Data Sheet (SDS) or to report suspected adverse drug events, contact Merial at 1-888-637-4251 or [www.nexgardfordogs.com](http://www.nexgardfordogs.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>.

## 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. In two separate, well-controlled laboratory studies, NexGard was effective at preventing *Borrelia burgdorferi* infections after dogs were infested with *Ixodes scapularis* vector ticks 28 days post-treatment.

## 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.

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