

UPGRADE TO 360-DEGREE PROTECTION



 **INTERCEPTOR[®]**
PLUS
(milbemycin oxime/praziquantel)

 **Credelio[®]**
(lotilaner)

Seresto[®]

CARE WITHOUT COMPROMISE

IDEAL FOR DOG OWNERS WHO PREFER ORAL ADMINISTRATION



CARE WITHOUT COMPROMISE

IDEAL FOR DOG OWNERS SEEKING A CONVENIENT ALTERNATIVE



ROUND OUT YOUR FLEA AND TICK PORTFOLIO

No two dog owners are the same. Adding 8-month Seresto® collars to your mix of orals and topicals can give you another effective option to satisfy more clients and help generate new business.

- Easy-to-use
- Convenient
- Cost-effective
- No odor
- No greasy mess
- No monthly flea and tick doses



RECOMMEND 2 DEFEND

Internal and external parasites are risky business for dogs — and they aren't always easy to detect. Recommending broad-spectrum parasite protection can lower the risk to dogs.

RISKS FROM FLEAS AND TICKS

- **Anaplasmosis**
- Anemia
- **Babesiosis**
- **Bartonellosis**
- **Ehrlichiosis**
- Flea allergy dermatitis
- **Lyme disease**
- **Rocky Mountain spotted fever**
- Skin infections/hotspots
- **Tapeworm**

Zoonotic disease names are in bold

INTERNAL PARASITE PREVALENCE AND DETECTION

- Heartworm disease has been diagnosed in all 50 states¹
- Research shows that tapeworms are more common in dogs than fecal exams or recovery of fecal or perineal proglottids indicate²
- Whipworms are found in as many as 10% of dogs presented to veterinary teaching hospitals³
- A 2017 study suggested that the prevalence of *A. caninum* hookworms in shelter dogs is frequently underestimated by fecal flotation⁴

One in five dogs tested positive for internal parasites in a study conducted in dog parks.⁵





INTERCEPTOR[®]
PLUS
(milbemycin oxime/praziquantel)

TASTY, CHICKEN-FLAVORED CHEW

- Accepted by 96.6% of dogs tested
- Approved for dogs and puppies 2 pounds of body weight or greater and 6 weeks of age or older

5-WORM PROTECTION

- Heartworm disease, tapeworms, whipworms, hookworms and roundworms

IDEAL FOR ACTIVE DOGS

- Dogs can be exposed to parasites by playing outside and/or visiting dog parks, boarding facilities or pet groomers

Prior to administration of Interceptor Plus, dogs should be tested for existing heartworm infections.



Credelio[®]
(lotilaner)

SMALL, BEEF-FLAVORED CHEWABLE TABLET

- Accepted by 100% of dogs tested⁶
- Gentle enough for pups and dogs as small as 4.4 pounds and as young as 8 weeks old

ACTS FAST

- Starts to kill ticks (*I. ricinus*) and fleas in just 4 hours

BROAD-SPECTRUM TICK EFFICACY*

- Kills four common species of ticks, including those that may transmit Lyme disease, Rocky Mountain spotted fever, ehrlichiosis, babesiosis and anaplasmosis

EXTRA-PURIFIED ACTIVE INGREDIENT

- The active molecule mixture is purified to leave only the active portion, lotilaner, in the final product
- Benefits include decreased possibility of potential side effects⁷, less work for the dog's body to process⁸ and strong protection in a smaller tablet that's easy to give⁸

**I. scapularis*, *A. americanum*, *R. sanguineus*, *D. variabilis*



Seresto[®]

CONVENIENT, LONG-LASTING

- Easy-to-apply, non-greasy and odorless—not like flea and tick collars of the past
- For dogs and puppies 7 weeks of age and older

INNOVATIVE INGREDIENT COMBINATION

- Flumethrin and imidacloprid work better together for dual action against fleas and ticks
- Kills fleas and the four major tick species that regularly infest pets[†]

PATENTED, SUSTAINED-RELEASE TECHNOLOGY

- Enables each collar to slowly release actives in low doses over 8 continuous months
- Spreads from head to toes, all the way to the tip of the tail⁹

AN ALTERNATIVE OPTION






- Gives clinics another tool to meet more pet owner flea and tick needs
- Sold in over 8,000 veterinary clinics nationwide¹⁰

[†]Deer ticks, American dog ticks, Brown dog ticks, Lone Star ticks



Please see Credelio and Interceptor Plus Important Safety Information on back page

CHOOSE COMPREHENSIVE COVERAGE, INSIDE AND OUT

INTERNAL PARASITE PROTECTION

	INTERCEPTOR[®] PLUS (milbemycin oxime/praziquantel)	Heartgard[®] Plus (ivermectin/pyrantel)	Simparica Trio[®] (sarolaner, moxidectin, and pyrantel chewable tablets)
 HEARTWORM DISEASE	✓	✓	✓
 TAPEWORMS	✓		
 WHIPWORMS	✓		
 HOOKWORMS	✓*	✓ ⁺	✓**
 ROUNDWORMS	✓	✓	✓

EXTERNAL PARASITE PROTECTION

	Credelio[®] (lotilaner)	NexGard[®] (afoxolaner)	Simparica Trio[®] (sarolaner, moxidectin, and pyrantel chewable tablets)
 FLEAS	✓	✓	✓
 TICKS	✓	✓	✓



THE ELUSIVE TAPEWORM

Tapeworm eggs are heavy and do not float easily. This is one of the reasons fecal flotations are thought to underestimate the frequency of tapeworm infection.¹¹



WHIPWORMS ARE WICKED

In a recent study, passive fecal flotations performed by veterinarians only recovered 37.7% of whipworm infections.¹²



FLEA-FREE IS THE WAY TO BE

In a study, 100% of dogs were flea-free after three months of treatment with Credelio compared to just 93.2% of dogs treated with NexGard.⁶

Based on label comparison.






*A. caninum

[†]A. caninum, U. stenocephala, A. braziliense



**A. caninum, U. stenocephala

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INTERNAL PARASITE PROTECTION

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 TAPEWORMS	✓		
 WHIPWORMS	✓		
 HOOKWORMS	✓*	✓ [†]	✓**
 ROUNDWORMS	✓	✓	✓

EXTERNAL PARASITE PROTECTION

	Seresto[®]	NexGard[®] (afoxolaner)	Simparica Trio[®] (sarolaner, moxidectin, and pyrantel chewable tablets)
 FLEAS	✓	✓	✓
 TICKS	✓	✓	✓



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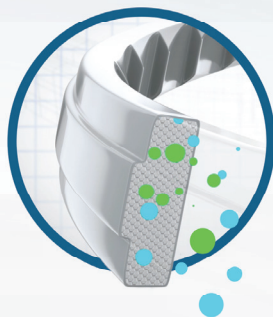
EFFECTIVE, EASY 8-MONTH ALTERNATIVE

For 8 months, Seresto[®] maintained 99-100% efficacy against fleas (24 hours post-application) and 98-100% efficacy against ticks (48 hours post-application).^{13,14}

Based on label comparison.

A. caninum* †*A. caninum, U. stenocephala, A. braziliense* *A. caninum, U. stenocephala*

NexGard and Heartgard are trademarks of Boehringer Ingelheim Animal Health USA Inc. Simparica Trio is a trademark of Zoetis Services, LLC.



HOW **PATENTED, SUSTAINED-RELEASE TECHNOLOGY** MAKES THE 8-MONTH DURATION OF SERESTO[®] POSSIBLE

- Stores active ingredients
- Releases in low, controlled doses
- Replenishes throughout the 8 months



Credelio™ (lotilaner)

Chewable Tablets

For oral use in dogs

Caution:

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

Description:

CREDELIO (lotilaner) is a beef-flavored, chewable tablet for oral administration to dogs and puppies according to their weight. Each chewable tablet is formulated to provide a minimum lotilaner dosage of 9 mg/lb (20 mg/kg).

Lotilaner has the chemical composition of 5-[(5S)-4,5-dihydro-5-(3,4,5-trichlorophenyl)-5-(trifluoromethyl)-3-isoxazolyl]-3-methyl-N-[2-oxo-2-[(2,2,2-trifluoroethyl)amino]ethyl]-2-thiophenecarboxamide.

Indications:

CREDELIO kills adult fleas and is indicated for the treatment and prevention of flea infestations (*Ctenocephalides felis*) and the treatment and control of tick infestations [*Amblyomma americanum* (lone star tick), *Dermacentor variabilis* (American dog tick), *Ixodes scapularis* (black-legged tick) and *Rhipicephalus sanguineus* (brown dog tick)] for one month in dogs and puppies 8 weeks of age and older, and weighing 4.4 pounds or greater.

Dosage and Administration:

CREDELIO is given orally once a month, at the minimum dosage of 9 mg/lb (20 mg/kg).

Dosage Schedule:

Body Weight	Lotilaner Per Chewable Tablet (mg)	Chewable Tablets Administered
4.4 to 6.0 lbs	56.25	One
6.1 to 12.0 lbs	112.5	One
12.1 to 25.0 lbs	225	One
25.1 to 50.0 lbs	450	One
50.1 to 100.0 lbs	900	One
Over 100.0 lbs	Administer the appropriate combination of chewable tablets	

CREDELIO must be administered with food (see **Clinical Pharmacology**).

Treatment with CREDELIO can begin at any time of the year and can continue year-round without interruption.

Contraindications:

There are no known contraindications for the use of CREDELIO.

Warnings:

Not for human use. Keep this and all drugs out of the reach of children. Keep CREDELIO in a secure location out of reach of dogs, cats, and other animals to prevent accidental ingestion or overdose.

Precautions:

Lotilaner 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.

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

Adverse Reactions:

In a well-controlled U.S. field study, which included 284 dogs (198 dogs treated with CREDELIO and 86 dogs treated with an oral active control), there were no serious adverse reactions.

Over the 90-day study period, all observations of potential adverse reactions were recorded. Reactions that occurred at an incidence of 1% or greater are presented in the following table.

Dogs with Adverse Reactions in the Field Study

Adverse Reaction (AR)	CREDELIO Group: Number (and Percent) of Dogs with the AR (n=198)	Active Control Group: Number (and Percent) of Dogs with the AR (n=86)
Weight Loss	3 (1.5%)	2 (2.3%)
Elevated Blood Urea Nitrogen (BUN)	2 (1.0%)*	0 (0.0%)
Polyuria	2 (1.0%)*	0 (0.0%)
Diarrhea	2 (1.0%)	2 (2.3%)

*Two geriatric dogs developed mildly elevated BUN (34 to 54 mg/dL; reference range: 6 to 31 mg/dL) during the study. One of these dogs also developed polyuria and a mildly elevated potassium (6.5 mEq/L; reference range: 3.6 to 5.5 mEq/L) and phosphorous (6.4 mg/dL; reference range: 2.5 to 6.0 mg/dL). The other dog also developed a mildly elevated creatinine (1.7 to 2.0 mg/dL; reference range: 0.5 to 1.6 mg/dL) and weight loss.

In addition, one dog experienced intermittent head tremors within 1.5 hours of administration of vaccines, an ear cleaning performed by the owner, and its first dose of CREDELIO. The head tremors resolved within 24 hours without treatment. The owner elected to withdraw the dog from the study.

In an Australian field study, one dog with a history of seizures experienced seizure activity (tremors and glazed eyes) six days after receiving CREDELIO. The dog recovered without treatment and completed the study. In the U.S. field study, two dogs with a history of seizures received CREDELIO and experienced no seizures throughout the study.

In three well-controlled European field studies and one U.S. laboratory study, seven dogs experienced episodes of vomiting and four dogs experienced episodes of diarrhea between 6 hours and 3 days after receiving CREDELIO.

To report suspected adverse events, for technical assistance or to obtain a copy of the Safety Data Sheet (SDS), contact Elanco US Inc. at 1-888-545-5973. For additional information about adverse drug experience reporting for animal drugs, contact FDA at 1-888-FDA-VETS or <http://www.fda.gov/reportanimalae>.

Clinical Pharmacology:

Following oral administration of 43 mg/kg (approximately 1X the maximum labeled dose), peak lotilaner concentrations were achieved between 6 hours and 3 days in dogs 2 months of age and between 1 and 7 days in dogs 10 months of age. Dogs 2 months of age had a shorter elimination half-life (average of 9.6 days) than at 10 months of age (average of 28.4 days). Due to reduced drug bioavailability in the fasted state, CREDELIO must be administered with a meal or within 30 minutes after feeding.

Mode of Action:

Lotilaner is an ectoparasiticide belonging to the isoxazoline group. Lotilaner inhibits insect and acarine gamma-aminobutyric acid (GABA)-gated chloride channels. This inhibition blocks the transfer of chloride ions across cell membranes, which results in uncontrolled neuromuscular activity leading to death of insects and acarines. The selective toxicity of lotilaner 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 well-controlled European laboratory studies, CREDELIO began to kill fleas four hours after administration or infestation, with greater than 99% of fleas killed within eight hours after administration or infestation for 35 days. In a well-controlled U.S. laboratory study, CREDELIO demonstrated 100% effectiveness against adult fleas 12 hours after administration or infestation for 35 days.

In a 90-day well-controlled U.S. field study conducted in households with existing flea infestations of varying severity, the effectiveness of CREDELIO against fleas on Days 30, 60 and 90 compared to baseline was 99.5%, 100% and 100%, respectively. Dogs with signs of flea allergy dermatitis showed improvement in erythema, papules, scaling, alopecia, dermatitis/pyodermitis and pruritus as a direct result of eliminating fleas.

In a well-controlled laboratory study, CREDELIO killed fleas before they could lay eggs, thus preventing subsequent flea infestations for 30 days after the start of treatment of existing flea infestations.

In well-controlled laboratory studies, CREDELIO demonstrated > 97% effectiveness against *Amblyomma americanum*, *Dermacentor variabilis*, *Ixodes scapularis* and *Rhipicephalus sanguineus* ticks 48 hours after administration or infestation for 30 days. In a well-controlled European laboratory study, CREDELIO started killing *Ixodes ricinus* ticks within four hours after administration.

Palatability: In the U.S. field study, which included 567 doses administered to 198 dogs, 80.4% of dogs voluntarily consumed CREDELIO when offered by hand or in an empty bowl, an additional 13.6% consumed CREDELIO when offered with food, and 6.0% required placement of the chewable tablet in the back of the dog's mouth.

Animal Safety:

In a margin of safety study, CREDELIO was administered orally to 24 (8 dogs/group) 8-week-old Beagle puppies at doses of 43 mg/kg, 129 mg/kg, and 215 mg/kg (approximately 1, 3, and 5X the maximum labeled dose, respectively) every 28 days for eight consecutive doses. The 8 dogs in the control group (OX) were untreated. There were no clinically-relevant, treatment-related effects on clinical observations, physical and neurological examinations, body weights, food consumption, electrocardiograms, clinical pathology (hematology, clinical chemistries, coagulation profiles and urinalysis), gross pathology, histopathology, or organ weights. Blood concentrations of lotilaner confirmed systemic exposure of all treated dogs, although the exposure was less than dose proportional at 5X.

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

Storage Information:

Store at 15-25°C (59 -77°F), excursions permitted between 5 to 40°C (41 to 104°F).

How Supplied:

CREDELIO is available in five chewable tablet sizes for use in dogs: 56.25, 112.5, 225, 450, and 900 mg lotilaner.

Each chewable tablet size is available in color-coded packages of 1, 3 or 6 chewable tablets.

Approved by FDA under NADA # 141-494

Manufactured by:

Elanco US Inc
Greenfield, IN 46140 USA
Credelio.com

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Rev. date 05/2020

INTERCEPTOR™ PLUS (milbemycin oxime/praziquantel)

Caution

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

Description

INTERCEPTOR PLUS is available in four strengths in color-coded packages for oral administration to dogs and puppies according to their weight.

Each chewable flavored tablet is formulated to provide a minimum of 0.23 mg/pound (0.5 mg/kg) of milbemycin oxime and 2.28 mg/pound (5 mg/kg) of praziquantel.

Milbemycin oxime consists of the oxime derivatives of 5-didehydromilbemycins in the ratio of approximately 80% A₁ (C₂₇H₄₅NO₇, MW 555.71) and 20% A₃ (C₃₁H₄₃NO₇, MW 541.68).

Milbemycin oxime is classified as a macrocyclic anthelmintic.

Praziquantel is an isoquinolone anthelmintic with the chemical name

2-(Cyclohexylcarbonyl)-1,2,3,6,7,11b-hexahydro-4H-pyrazino [2,1-a]isoquinolin-4-one.

Indications

INTERCEPTOR PLUS is indicated for the prevention of heartworm disease caused by *Dirofilaria immitis*, and for the treatment and control of adult roundworm (*Toxocara canis*, *Toxascaris leonina*), adult hookworm (*Ancylostoma caninum*), adult whipworm (*Trichuris vulpis*), and adult tapeworm (*Taenia pisiformis*, *Echinococcus multilocularis*, *Echinococcus granulosus*, and *Dipylidium caninum*) infections in dogs and puppies two pounds of body weight or greater and six weeks of age and older.

Dosage and Administration

INTERCEPTOR PLUS should be administered orally, once every month, at the minimum dosage of 0.23 mg/lb (0.5 mg/kg) milbemycin oxime, and 2.28 mg/lb (5 mg/kg) praziquantel.

For heartworm prevention, give once monthly for at least 6 months after exposure to mosquitoes (see **EFFECTIVENESS**).

Dosage Schedule

Body Weight	Milbemycin	Praziquantel	Number of chewables
	Oxime per chewable	per chewable	
2 to 8 lbs.	2.3 mg	22.8 mg	One
8.1 to 25 lbs.	5.75 mg	57 mg	One
25.1 to 50 lbs.	11.5 mg	114 mg	One
50.1 to 100 lbs.	23 mg	228 mg	One
Over 100 lbs.	Administer the appropriate combination of chewables.		

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

Heartworm Prevention:

INTERCEPTOR PLUS should be administered at monthly intervals beginning within 1 month of the dog's first seasonal exposure to mosquitoes and continuing until at least 6 months after the dog's last seasonal exposure (see **EFFECTIVENESS**). INTERCEPTOR PLUS may be administered year-round without interruption. When switching from another heartworm preventative product to INTERCEPTOR PLUS, the first dose of INTERCEPTOR PLUS should be given within a month of the last dose of the former product.

Intestinal Nematode and Cestode Treatment and Control:

Dogs may be exposed to and can become infected with roundworms, whipworms, hookworms, and tapeworms throughout the year, regardless of season or climate. Clients should be advised of appropriate measures to prevent reinfection of their dog with intestinal parasites. Because the prepatent period for *E. multilocularis* may be as short as 26 days, dogs treated at the labeled monthly intervals may become reinfected and shed eggs between treatments.

Contraindications

There are no known contraindications to the use of INTERCEPTOR PLUS.

Warnings

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

Precautions

Treatment with fewer than 6 monthly doses after the last exposure to mosquitoes may not provide complete heartworm prevention (see **EFFECTIVENESS**).

Prior to administration of INTERCEPTOR PLUS, dogs should be tested for existing heartworm infections. At the discretion of the veterinarian, infected dogs should be treated to remove adult heartworms. INTERCEPTOR PLUS is not effective against adult *D. immitis*.

Mild, transient hypersensitivity reactions, such as labored breathing, vomiting, hypersalivation, and lethargy, have been noted in some dogs treated with milbemycin oxime carrying a high number of circulating microfilariae. These reactions are presumably caused by release of protein from dead or dying microfilariae.

Do not use in puppies less than six weeks of age.

Do not use in dogs or puppies less than two pounds of body weight.

The safety of INTERCEPTOR PLUS has not been evaluated in dogs used for breeding or in lactating females. Studies have been performed with milbemycin oxime alone (see **ANIMAL SAFETY**).

Adverse Reactions

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

To report suspected adverse events, for technical assistance or to obtain a copy of the Safety Data Sheet (SDS), contact Elanco US, Inc. at 1-888-545-5973.

PA103071X

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

Information for Owner or Person Treating Animal:

Echinococcus multilocularis and *Echinococcus granulosus* are tapeworms found in wild canids and domestic dogs. *E. multilocularis* and *E. granulosus* can infect humans and cause serious disease (alveolar hydatid disease and hydatid disease, respectively). Owners of dogs living in areas where *E. multilocularis* or *E. granulosus* are endemic should be instructed on how to minimize their risk of exposure to these parasites, as well as their dog's risk of exposure. Although INTERCEPTOR PLUS (milbemycin oxime/praziquantel) was 100% effective in laboratory studies in dogs against *E. multilocularis* and *E. granulosus*, no studies have been conducted to show that the use of this product will decrease the incidence of alveolar hydatid disease or hydatid disease in humans. Because the prepatent period for *E. multilocularis* may be as short as 26 days, dogs treated at the labeled monthly intervals may become reinfected and shed eggs between treatments.

Effectiveness

Heartworm Prevention:

In a well-controlled laboratory study, INTERCEPTOR PLUS was 100% effective against induced heartworm infections when administered once monthly for 6 consecutive months.

In well-controlled laboratory studies, neither one dose nor two consecutive doses of INTERCEPTOR PLUS provided 100% effectiveness against induced heartworm infections.

Intestinal Nematodes and Cestodes Treatment and Control:

Elimination of the adult stage of hookworm (*Ancylostoma caninum*), roundworm (*Toxocara canis*, *Toxascaris leonina*), whipworm (*Trichuris vulpis*) and tapeworm (*Echinococcus multilocularis*, *Echinococcus granulosus*, *Taenia pisiformis* and *Dipylidium caninum*) infections in dogs was demonstrated in well-controlled laboratory studies.

Palatability

In a field study of 115 dogs offered INTERCEPTOR PLUS, 108 dogs (94.0%) accepted the product when offered from the hand as if a treat, 1 dog (0.9%) accepted it from the bowl with food, 2 dogs (1.7%) accepted it when it was placed in the dog's mouth, and 4 dogs (3.5%) refused it.

Animal Safety

INTERCEPTOR PLUS:

In a repeated dose safety study, 40 ten-week-old puppies (10 per group) were dosed with either a sham dose (0X) or 1, 3, or 5X the maximum label exposure of INTERCEPTOR PLUS every 14 days for a total of seven treatments. Ataxia, lethargy, and salivation were seen in the 3X and 5X treated dogs following each of the seven doses. Vomiting was seen in all treatment groups but had a higher incidence in the 3X and 5X treatment groups.

In a repeated dose safety study, 64 six-week-old puppies (16 per group) were dosed with either a sham dose (0X) or 1, 3, or 5X the maximum label exposure of INTERCEPTOR PLUS every 14 days for a total of four treatments. Lethargy was observed in all groups. Ataxia was observed in the three treated groups, including one dog in the 1X treated group.

For both lethargy and ataxia the incidence and duration increased in the 3X and 5X groups.

These signs were observed during the first 24 hours following treatment.

Salivation and tremors were observed in the 3X and 5X treated dogs beginning immediately after dosing and up to six hours post dose. Vomiting was only observed in the 5X treatment group on most, but not all, treatment days.

For INTERCEPTOR PLUS the maximum exposure based on product dosing is 2.5 mg/kg for milbemycin oxime and 25.1 mg/kg for praziquantel, which is higher than the minimum effective dose used in the safety studies for milbemycin oxime (see below).

Milbemycin Oxime:

Two studies were conducted in heartworm-infected dogs treated with milbemycin oxime.

Mild, transient hypersensitivity reactions were observed in dogs with high microfilariae counts (see **PRECAUTIONS**).

Safety studies in pregnant dogs demonstrated that doses of 0.6X the maximum exposure dose of INTERCEPTOR PLUS, (1.5 mg/kg of milbemycin oxime), administered daily from mating through weaning, resulted in measurable concentrations of milbemycin oxime in milk. Puppies nursing these females demonstrated milbemycin oxime-related effects (depression, decreased activity, diarrhea, dehydration, nasal discharge). A subsequent study, which evaluated the daily administration of 0.6X the maximum exposure dose of INTERCEPTOR PLUS, from mating until one week before weaning, demonstrated no effects on the pregnant females or their litters. A study, in which pregnant females were dosed once, at 0.6X the maximum exposure dose of INTERCEPTOR PLUS before, on the day of, or shortly after whelping, resulted in no effects on the puppies.

Some nursing puppies, at 2, 4, and 6 weeks of age, administered oral doses of 9.6 mg/kg milbemycin oxime (3.8X the maximum exposure dose of INTERCEPTOR PLUS) exhibited tremors, vocalization, and ataxia. These effects were all transient and puppies returned to normal within 24 to 48 hours. No effects were observed in puppies administered 0.5 mg/kg milbemycin oxime (minimum label dose).

A rising-dose safety study conducted in rough-coated Collies resulted in ataxia, pyrexia, and periodic recumbency in one of fourteen dogs administered milbemycin oxime at 12.5 mg/kg (5X the maximum exposure dose of INTERCEPTOR PLUS). Prior to receiving the 12.5 mg/kg dose on day 56 of the study, all animals had undergone a dosing regimen consisting of 2.5 mg/kg milbemycin oxime on day 0, followed by 5.0 mg/kg on day 14, and 10.0 mg/kg on day 32. No adverse reactions were observed in any of the Collies treated with doses less than 12.5 mg/kg.

Storage Information

Store at room temperature, between 59° and 77°F (15-25°C).

How Supplied

INTERCEPTOR PLUS is available in four strengths, formulated according to the weight of the dog. Each strength is available in color-coded packages of one, six or twelve chewable tablets each.

Manufactured by:

Elanco US Inc.

Greenfield, IN 46140, USA

Approved by FDA under NADA # 141-338

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Revision date: November 2020

Elanco

Ask your Elanco sales rep for more information about **360-degree protection** with Interceptor® Plus (milbemycin oxime/praziquantel) and Credelio® (lotilaner), or with Interceptor Plus and Seresto®.

INDICATIONS FOR CREDELIO

Credelio kills adult fleas and is indicated for the treatment and prevention of flea infestations (*Ctenocephalides felis*) and the treatment and control of tick infestations [*Amblyomma americanum* (lone star tick), *Dermacentor variabilis* (American dog tick), *Ixodes scapularis* (black-legged tick) and *Rhipicephalus sanguineus* (brown dog tick)] for one month in dogs and puppies 8 weeks of age and older and weighing 4.4 pounds or greater.

IMPORTANT SAFETY INFORMATION FOR CREDELIO

Lotilaner 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 this class of drugs, even in dogs without a history of seizures. Use with caution in dogs with a history of seizures or neurologic disorders. The safe use of Credelio in breeding, pregnant, or lactating dogs has not been evaluated. The most frequently reported adverse reactions are weight loss, elevated blood urea nitrogen, polyuria, and diarrhea. For full prescribing information see Credelio package insert.

INDICATIONS FOR INTERCEPTOR PLUS

Interceptor Plus is indicated for the prevention of heartworm disease caused by *Dirofilaria immitis* and for the treatment and control of adult roundworm (*Toxocara canis*, *Toxascaris leonina*), adult hookworm (*Ancylostoma caninum*), adult whipworm (*Trichuris vulpis*), and adult tapeworm (*Taenia pisiformis*, *Echinococcus multilocularis*, *Echinococcus granulosus* and *Dipylidium caninum*) infections in dogs and puppies 6 weeks of age or older and 2 pounds of body weight or greater.

IMPORTANT SAFETY INFORMATION FOR INTERCEPTOR PLUS

Treatment with fewer than 6 monthly doses after the last exposure to mosquitoes may not provide complete heartworm prevention. Prior to administration of Interceptor Plus, dogs should be tested for existing heartworm infections. The safety of Interceptor Plus has not been evaluated in dogs used for breeding or in lactating females. The following adverse reactions have been reported in dogs after administration of milbemycin oxime or praziquantel: vomiting, diarrhea, depression/lethargy, ataxia, anorexia, convulsions, weakness, and salivation. For full prescribing information see Interceptor Plus package insert.

REFERENCES

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- ¹³Data on file. Elanco Animal Health.
- ¹⁴Data on file. Elanco Animal Health.

Ask your Elanco sales rep for more information about **360-degree protection** with Interceptor® Plus (milbemycin oxime/praziquantel) and Credelio® (lotilaner), or with Interceptor Plus and Seresto®.

UPGRADE TO 360-DEGREE PROTECTION



INDICATIONS FOR CREDELIO

Credelio kills adult fleas and is indicated for the treatment and prevention of flea infestations (*Ctenocephalides felis*) and the treatment and control of tick infestations [*Amblyomma americanum* (lone star tick), *Dermacentor variabilis* (American dog tick), *Ixodes scapularis* (black-legged tick) and *Rhipicephalus sanguineus* (brown dog tick)] for one month in dogs and puppies 8 weeks of age and older and weighing 4.4 pounds or greater.

IMPORTANT SAFETY INFORMATION FOR CREDELIO

Lotilaner 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 this class of drugs, even in dogs without a history of seizures. Use with caution in dogs with a history of seizures or neurologic disorders. The safe use of Credelio in breeding, pregnant, or lactating dogs has not been evaluated. The most frequently reported adverse reactions are weight loss, elevated blood urea nitrogen, polyuria, and diarrhea. For full prescribing information see Credelio package insert.

INDICATIONS FOR INTERCEPTOR PLUS

Interceptor Plus is indicated for the prevention of heartworm disease caused by *Dirofilaria immitis* and for the treatment and control of adult roundworm (*Toxocara canis*, *Toxascaris leonina*), adult hookworm (*Ancylostoma caninum*), adult whipworm (*Trichuris vulpis*), and adult tapeworm (*Taenia pisiformis*, *Echinococcus multilocularis*, *Echinococcus granulosus* and *Dipylidium caninum*) infections in dogs and puppies 6 weeks of age or older and 2 pounds of body weight or greater.

IMPORTANT SAFETY INFORMATION FOR INTERCEPTOR PLUS

Treatment with fewer than 6 monthly doses after the last exposure to mosquitoes may not provide complete heartworm prevention. Prior to administration of Interceptor Plus, dogs should be tested for existing heartworm infections. The safety of Interceptor Plus has not been evaluated in dogs used for breeding or in lactating females. The following adverse reactions have been reported in dogs after administration of milbemycin oxime or praziquantel: vomiting, diarrhea, depression/lethargy, ataxia, anorexia, convulsions, weakness, and salivation. For full prescribing information see Interceptor Plus package insert.

REFERENCES

- ¹American Heartworm Society. Heartworm basics. Available at: <https://www.heartwormsociety.org/pet-owner-resources/heartworm-basics>. Accessed December 2, 2019.
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- ⁴Adolph C, Barnett S, Beall M, et al. Diagnostic strategies to reveal covert infections with intestinal helminths in dogs. *Vet Parasitol*. 2017;247:108-112.
- ⁵Stafford K, Kollasch TM, Duncan KT, et al. Detection of gastrointestinal parasitism at recreational canine sites in the United States (the DOGPARCS study). *Parasite Vector*. 2020;13:275.
- ⁶Karadzovska D, Chappell K, Coble S, et al. A randomized, controlled field study to assess the efficacy and safety of lotilaner flavored chewable tablets (Credelio™) in eliminating fleas in client-owned dogs in the USA. *Parasite Vector*. 2017;10:528.
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- ⁹Data on file. Elanco Animal Health.
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- ¹¹Companion Animal Parasite Council. *Dipylidium caninum*. Available at: <https://capcvet.org/guidelines/dipylidium-caninum/>. Accessed April 28, 2020.
- ¹²Dryden M, Herrin B, Payne P, et al. Further comparison of centrifugation versus passive fecal flotation for the recovery of *Toxocara canis*, *Trichuris vulpis* and *Ancylostoma caninum* eggs [abstract]. In Proceedings WAAVP 27th Annual Meeting. Madison, WI; 2019. Jul 7-11.
- ¹³Data on file. Elanco Animal Health.
- ¹⁴Data on file. Elanco Animal Health.

IDEAL FOR DOG OWNERS WHO PREFER ORAL ADMINISTRATION



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Elanco

INTERCEPTOR
PLUS
(milbemycin oxime/praziquantel)

Credelio
(lotilaner)

Seresto

ROUND OUT YOUR FLEA AND TICK PORTFOLIO

No two dog owners are the same. Adding 8-month Seresto® collars to your mix of orals and topicals can give you another effective option to satisfy more clients and help generate new business.

- Easy-to-use
- Convenient
- Cost-effective
- No odor
- No greasy mess
- No monthly flea and tick doses



CARE WITHOUT COMPROMISE

IDEAL FOR DOG OWNERS SEEKING A CONVENIENT ALTERNATIVE



INTERCEPTOR PLUS (milbemycin oxime/praziquantel)

Caution

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

Description

INTERCEPTOR PLUS is available in four strengths in color-coded packages for oral administration to dogs and puppies according to their weight.

Each chewable flavored tablet is formulated to provide a minimum of 0.23 mg/pound (0.5 mg/kg) of milbemycin oxime and 2.28 mg/pound (5 mg/kg) of praziquantel.

Milbemycin oxime consists of the oxime derivatives of 5-didehydromilbemycins in the ratio of approximately 80% A₁ (C₂₂H₄₃NO₇, MW 555.71) and 20% A₂ (C₂₃H₄₃NO₇, MW 541.68).

Milbemycin oxime is classified as a macrocyclic anthelmintic.

Praziquantel is an isoquinolone anthelmintic with the chemical name 2-(Cyclohexylcarbonyl)-1,2,3,6,7,11b-hexahydro-4H-pyrazino [2,1-a]isoquinolin-4-one.

Indications

INTERCEPTOR PLUS is indicated for the prevention of heartworm disease caused by *Dirofilaria immitis*, and for the treatment and control of adult roundworm (*Toxocara canis*, *Toxascaris leonina*), adult hookworm (*Ancylostoma caninum*), adult whipworm (*Trichuris vulpis*), and adult tapeworm (*Taenia pisiformis*, *Echinococcus multilocularis*, *Echinococcus granulosus*, and *Dipylidium caninum*) infections in dogs and puppies two pounds of body weight or greater and six weeks of age and older.

Dosage and Administration

INTERCEPTOR PLUS should be administered orally, once every month, at the minimum dosage of 0.23 mg/lb (0.5 mg/kg) milbemycin oxime, and 2.28 mg/lb (5 mg/kg) praziquantel.

For heartworm prevention, give once monthly for at least 6 months after exposure to mosquitoes (see **EFFECTIVENESS**).

Body Weight	Dosage Schedule		Number of chewables
	Milbemycin Oxime per chewable	Praziquantel per chewable	
2 to 8 lbs.	2.3 mg	22.8 mg	One
8.1 to 25 lbs.	5.75 mg	57 mg	One
25.1 to 50 lbs.	11.5 mg	114 mg	One
50.1 to 100 lbs.	23 mg	228 mg	One
Over 100 lbs.	Administer the appropriate combination of chewables.		

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

Heartworm Prevention:

INTERCEPTOR PLUS should be administered at monthly intervals beginning within 1 month of the dog's first seasonal exposure to mosquitoes and continuing until at least 6 months after the dog's last seasonal exposure (see **EFFECTIVENESS**). INTERCEPTOR PLUS may be administered year-round without interruption. When switching from another heartworm preventative product to INTERCEPTOR PLUS, the first dose of INTERCEPTOR PLUS should be given within a month of the last dose of the former product.

Intestinal Nematode and Cestode Treatment and Control:

Dogs may be exposed to and can become infected with roundworms, whipworms, hookworms, and tapeworms throughout the year, regardless of season or climate. Clients should be advised of appropriate measures to prevent reinfection of their dog with intestinal parasites. Because the prepatent period for *E. multilocularis* may be as short as 26 days, dogs treated at the labeled monthly intervals may become reinfected and shed eggs between treatments.

Contraindications

There are no known contraindications to the use of INTERCEPTOR PLUS.

Warnings

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

Precautions

Treatment with fewer than 6 monthly doses after the last exposure to mosquitoes may not provide complete heartworm prevention (see **EFFECTIVENESS**).

Prior to administration of INTERCEPTOR PLUS, dogs should be tested for existing heartworm infections. At the discretion of the veterinarian, infected dogs should be treated to remove adult heartworms. INTERCEPTOR PLUS is not effective against adult *D. immitis*.

Mild, transient hypersensitivity reactions, such as labored breathing, vomiting, hypersalivation, and lethargy, have been noted in some dogs treated with milbemycin oxime carrying a high number of circulating microfilariae. These reactions are presumably caused by release of protein from dead or dying microfilariae.

Do not use in puppies less than six weeks of age.

Do not use in dogs or puppies less than two pounds of body weight.

The safety of INTERCEPTOR PLUS has not been evaluated in dogs used for breeding or in lactating females. Studies have been performed with milbemycin oxime alone (see **ANIMAL SAFETY**).

Adverse Reactions

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

To report suspected adverse events, for technical assistance or to obtain a copy of the Safety Data Sheet (SDS), contact Elanco US, Inc. at 1-888-545-5973.

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

Information for Owner or Person Treating Animal:

Echinococcus multilocularis and *Echinococcus granulosus* are tapeworms found in wild canids and domestic dogs. *E. multilocularis* and *E. granulosus* can infect humans and cause serious disease (alveolar hydatid disease and hydatid disease, respectively). Owners of dogs living in areas where *E. multilocularis* or *E. granulosus* are endemic should be instructed on how to minimize their risk of exposure to these parasites, as well as their dog's risk of exposure. Although INTERCEPTOR PLUS (milbemycin oxime/praziquantel) was 100% effective in laboratory studies in dogs against *E. multilocularis* and *E. granulosus*, no studies have been conducted to show that the use of this product will decrease the incidence of alveolar hydatid disease or hydatid disease in humans. Because the prepatent period for *E. multilocularis* may be as short as 26 days, dogs treated at the labeled monthly intervals may become reinfected and shed eggs between treatments.

Effectiveness

Heartworm Prevention:

In a well-controlled laboratory study, INTERCEPTOR PLUS was 100% effective against induced heartworm infections when administered once monthly for 6 consecutive months.

In well-controlled laboratory studies, neither one dose nor two consecutive doses of INTERCEPTOR PLUS provided 100% effectiveness against induced heartworm infections.

Intestinal Nematodes and Cestodes Treatment and Control:

Elimination of the adult stage of hookworm (*Ancylostoma caninum*), roundworm (*Toxocara canis*, *Toxascaris leonina*), whipworm (*Trichuris vulpis*) and tapeworm (*Echinococcus multilocularis*, *Echinococcus granulosus*, *Taenia pisiformis* and *Dipylidium caninum*) infections in dogs was demonstrated in well-controlled laboratory studies.

Palatability

In a field study of 115 dogs offered INTERCEPTOR PLUS, 108 dogs (94.0%) accepted the product when offered from the hand as if a treat, 1 dog (0.9%) accepted it from the bowl with food, 2 dogs (1.7%) accepted it when it was placed in the dog's mouth, and 4 dogs (3.5%) refused it.

Animal Safety

INTERCEPTOR PLUS:

In a repeated dose safety study, 40 ten-week-old puppies (10 per group) were dosed with either a sham dose (0X) or 1, 3, or 5X the maximum label exposure of INTERCEPTOR PLUS every 14 days for a total of seven treatments. Ataxia, lethargy, and salivation were seen in the 3X and 5X treated dogs following each of the seven doses. Vomiting was seen in all treatment groups but had a higher incidence in the 3X and 5X treatment groups.

In a repeated dose safety study, 64 six-week-old puppies (16 per group) were dosed with either a sham dose (0X) or 1, 3, or 5X the maximum label exposure of INTERCEPTOR PLUS every 14 days for a total of four treatments. Lethargy was observed in all groups. Ataxia was observed in the three treated groups, including one dog in the 1X treated group.

For both lethargy and ataxia the incidence and duration increased in the 3X and 5X groups. These signs were observed during the first 24 hours following treatment.

Salivation and tremors were observed in the 3X and 5X treated dogs beginning immediately after dosing and up to six hours post dose. Vomiting was only observed in the 5X treatment group on most, but not all, treatment days.

For INTERCEPTOR PLUS the maximum exposure based on product dosing is 2.5 mg/kg for milbemycin oxime and 25.1 mg/kg for praziquantel, which is higher than the minimum effective dose used in the safety studies for milbemycin oxime (see below).

Milbemycin Oxime:

Two studies were conducted in heartworm-infected dogs treated with milbemycin oxime. Mild, transient hypersensitivity reactions were observed in dogs with high microfilariae counts (see **PRECAUTIONS**).

Safety studies in pregnant dogs demonstrated that doses of 0.6X the maximum exposure dose of INTERCEPTOR PLUS, (1.5 mg/kg of milbemycin oxime), administered daily from mating through weaning, resulted in measurable concentrations of milbemycin oxime in milk. Puppies nursing these females demonstrated milbemycin oxime-related effects (depression, decreased activity, diarrhea, dehydration, nasal discharge). A subsequent study, which evaluated the daily administration of 0.6X the maximum exposure dose of INTERCEPTOR PLUS, from mating until one week before weaning, demonstrated no effects on the pregnant females or their litters. A study, in which pregnant females were dosed once, at 0.6X the maximum exposure dose of INTERCEPTOR PLUS before, on the day of, or shortly after whelping, resulted in no effects on the puppies.

Some nursing puppies, at 2, 4, and 6 weeks of age, administered oral doses of 9.6 mg/kg milbemycin oxime (3.8X the maximum exposure dose of INTERCEPTOR PLUS) exhibited tremors, vocalization, and ataxia. These effects were all transient and puppies returned to normal within 24 to 48 hours. No effects were observed in puppies administered 0.5 mg/kg milbemycin oxime (minimum label dose).

A rising-dose safety study conducted in rough-coated Collies resulted in ataxia, pyrexia, and periodic recumbency in one of fourteen dogs administered milbemycin oxime at 12.5 mg/kg (5X the maximum exposure dose of INTERCEPTOR PLUS). Prior to receiving the 12.5 mg/kg dose on day 56 of the study, all animals had undergone a dosing regimen consisting of 2.5 mg/kg milbemycin oxime on day 0, followed by 5.0 mg/kg on day 14, and 10.0 mg/kg on day 32.

No adverse reactions were observed in any of the Collies treated with doses less than 12.5 mg/kg.

Storage Information

Store at room temperature, between 59° and 77°F (15-25°C).

How Supplied

INTERCEPTOR PLUS is available in four strengths, formulated according to the weight of the dog. Each strength is available in color-coded packages of one, six or twelve chewable tablets each. Manufactured for: Elanco US Inc. Greenfield, IN 46140, USA

Approved by FDA under NADA # 141-338

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Revision date: November 2020

Credelio™ (lotilaner)

Chewable Tablets
For oral use in dogs

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

Description:
CREDELIO (lotilaner) is a beef-flavored, chewable tablet for oral administration to dogs and puppies according to their weight. Each chewable tablet is formulated to provide a minimum lotilaner dosage of 9 mg/lb (20 mg/kg).

Lotilaner has the chemical composition of 5-[(5S)-4,5-dihydro-5-(3,4,5-trichlorophenyl)-5-(trifluoromethyl)-3-isoxazolyl]-3-methyl-N-[(2,2,2-trifluoroethyl)amino]ethyl]-2-thiophenecarboxamide.

Indications:
CREDELIO kills adult fleas and is indicated for the treatment and prevention of flea infestations (*Ctenocephalides felis*) and the treatment and control of tick infestations [*Amblyomma americanum* (lone star tick), *Dermacentor variabilis* (American dog tick), *Ixodes scapularis* (black-legged tick) and *Rhipicephalus sanguineus* (brown dog tick)] for one month in dogs and puppies 8 weeks of age and older, and weighing 4.4 pounds or greater.

Dosage and Administration:
CREDELIO is given orally once a month, at the minimum dosage of 9 mg/lb (20 mg/kg).

Dosage Schedule:

Body Weight	Lotilaner Per Chewable Tablet (mg)	Chewable Tablets Administered
4.4 to 6.0 lbs	56.25	One
6.1 to 12.0 lbs	112.5	One
12.1 to 25.0 lbs	225	One
25.1 to 50.0 lbs	450	One
50.1 to 100.0 lbs	900	One
Over 100.0 lbs	Administer the appropriate combination of chewable tablets	

CREDELIO must be administered with food (see **Clinical Pharmacology**).
Treatment with CREDELIO can begin at any time of the year and can continue year-round without interruption.

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

Warnings:
Not for human use. Keep this and all drugs out of the reach of children. Keep CREDELIO in a secure location out of reach of dogs, cats, and other animals to prevent accidental ingestion or overdose.

Precautions:
Lotilaner 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.
The safe use of CREDELIO in breeding, pregnant or lactating dogs has not been evaluated.

Adverse Reactions:
In a well-controlled U.S. field study, which included 284 dogs (198 dogs treated with CREDELIO and 86 dogs treated with an oral active control), there were no serious adverse reactions. Over the 90-day study period, all observations of potential adverse reactions were recorded. Reactions that occurred at an incidence of 1% or greater are presented in the following table.

Dogs with Adverse Reactions in the Field Study

Adverse Reaction (AR)	CREDELIO Group: Number (and Percent) of Dogs with the AR (n=198)	Active Control Group: Number (and Percent) of Dogs with the AR (n=86)
Weight Loss	3 (1.5%)	2 (2.3%)
Elevated Blood Urea Nitrogen (BUN)	2 (1.0%)*	0 (0.0%)
Polyuria	2 (1.0%)*	0 (0.0%)
Diarrhea	2 (1.0%)	2 (2.3%)

*Two geriatric dogs developed mildly elevated BUN (34 to 54 mg/dL; reference range: 6 to 31 mg/dL) during the study. One of these dogs also developed polyuria and a mildly elevated potassium (6.5 mEq/L; reference range: 3.6 to 5.5 mEq/L) and phosphorus (6.4 mg/dL; reference range: 2.5 to 6.0 mg/dL). The other dog also developed a mildly elevated creatinine (1.7 to 2.0 mg/dL; reference range: 0.5 to 1.6 mg/dL) and weight loss.

In addition, one dog experienced intermittent head tremors within 1.5 hours of administration of vaccines, an ear cleaning performed by the owner, and its first dose of CREDELIO. The head tremors resolved within 24 hours without treatment. The owner elected to withdraw the dog from the study.

In an Australian field study, one dog with a history of seizures experienced seizure activity (tremors and glazed eyes) six days after receiving CREDELIO. The dog recovered without treatment and completed the study. In the U.S. field study, two dogs with a history of seizures received CREDELIO and experienced no seizures throughout the study.

In three well-controlled European field studies and one U.S. laboratory study, seven dogs experienced episodes of vomiting and four dogs experienced episodes of diarrhea between 6 hours and 3 days after receiving CREDELIO.

To report suspected adverse events, for technical assistance or to obtain a copy of the Safety Data Sheet (SDS), contact Elanco US Inc. at 1-888-545-5973. For additional information about adverse drug experience reporting for animal drugs, contact FDA at 1-888-FDA-VETS or <http://www.fda.gov/reportanimalae>.

Clinical Pharmacology:
Following oral administration of 43 mg/kg (approximately 1X the maximum labeled dose), peak lotilaner concentrations were achieved between 6 hours and 3 days in dogs 2 months of age and between 1 and 7 days in dogs 10 months of age. Dogs 2 months of age had a shorter elimination half-life (average of 9.6 days) than at 10 months of age (average of 28.4 days). Due to reduced drug bioavailability in the fasted state, CREDELIO must be administered with a meal or within 30 minutes after feeding.

Mode of Action:
Lotilaner is an ectoparasiticide belonging to the isoxazoline group. Lotilaner inhibits insect and acarine gamma-aminobutyric acid (GABA)-gated chloride channels. This inhibition blocks the transfer of chloride ions across cell membranes, which results in uncontrolled neuromuscular activity leading to death of insects and acarines. The selective toxicity of lotilaner 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 well-controlled European laboratory studies, CREDELIO began to kill fleas four hours after administration or infestation, with greater than 99% of fleas killed within eight hours after administration or infestation for 35 days. In a well-controlled U.S. laboratory study, CREDELIO demonstrated 100% effectiveness against adult fleas 12 hours after administration or infestation for 35 days.

In a 90-day well-controlled U.S. field study conducted in households with existing flea infestations of varying severity, the effectiveness of CREDELIO against fleas on Days 30, 60 and 90 compared to baseline was 99.5%, 100% and 100%, respectively. Dogs with signs of flea allergy dermatitis showed improvement in erythema, papules, scaling, alopecia, dermatitis/pyodermitis and pruritus as a direct result of eliminating fleas.

In a well-controlled laboratory study, CREDELIO killed fleas before they could lay eggs, thus preventing subsequent flea infestations for 30 days after the start of treatment of existing flea infestations.

In well-controlled laboratory studies, CREDELIO demonstrated > 97% effectiveness against *Amblyomma americanum*, *Dermacentor variabilis*, *Ixodes scapularis* and *Rhipicephalus sanguineus* ticks 48 hours after administration or infestation for 30 days. In a well-controlled European laboratory study, CREDELIO started killing *Ixodes ricinus* ticks within four hours after administration.

Palatability: In the U.S. field study, which included 567 doses administered to 198 dogs, 80.4% of dogs voluntarily consumed CREDELIO when offered by hand or in an empty bowl, an additional 13.6% consumed CREDELIO when offered with food, and 6.0% required placement of the chewable tablet in the back of the dog's mouth.

Animal Safety:
In a margin of safety study, CREDELIO was administered orally to 24 (8 dogs/group) 8-week-old Beagle puppies at doses of 43 mg/kg, 129 mg/kg, and 215 mg/kg (approximately 1, 3, and 5X the maximum labeled dose, respectively) every 28 days for eight consecutive doses. The 8 dogs in the control group (0X) were untreated. There were no clinically-relevant, treatment-related effects on clinical observations, physical and neurological examinations, body weights, food consumption, electrocardiograms, clinical pathology (hematology, clinical chemistries, coagulation profiles and urinalysis), gross pathology, histopathology, or organ weights. Blood concentrations of lotilaner confirmed systemic exposure of all treated dogs, although the exposure was less than dose proportional at 5X.

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

Storage Information:
Store at 15-25°C (59 -77°F), excursions permitted between 5 to 40°C (41 to 104°F).

How Supplied:
CREDELIO is available in five chewable tablet sizes for use in dogs: 56.25, 112.5, 225, 450, and 900 mg lotilaner. Each chewable tablet size is available in color-coded packages of 1, 3 or 6 chewable tablets.

Approved by FDA under NADA # 141-494

Manufactured for:
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Rev. date 05/2020

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W1a

RECOMMEND 2 DEFEND

Internal and external parasites are risky business for dogs — and they aren't always easy to detect. Recommending broad-spectrum parasite protection can lower the risk to dogs.

RISKS FROM FLEAS AND TICKS

- **Anaplasmosis**
- **Anemia**
- **Babesiosis**
- **Bartonellosis**
- **Ehrlichiosis**
- **Flea allergy dermatitis**
- **Lyme disease**
- **Rocky Mountain spotted fever**
- **Skin infections/hotspots**
- **Tapeworm**

Zoonotic disease names are in bold

INTERNAL PARASITE PREVALENCE AND DETECTION

- Heartworm disease has been diagnosed in all 50 states¹
- Research shows that tapeworms are more common in dogs than fecal exams or recovery of fecal or perineal proglottids indicate²
- Whipworms are found in as many as 10% of dogs presented to veterinary teaching hospitals³
- A 2017 study suggested that the prevalence of *A. caninum* hookworms in shelter dogs is frequently underestimated by fecal flotation⁴

One in five dogs tested positive for internal parasites in a study conducted in dog parks.⁵



PA102967X

NexGard and Heartgard are trademarks of Boehringer Ingelheim Animal Health USA Inc. Simparica Trio is a trademark of Zoetis Services, LLC.

Based on label comparison:
**A. caninum*
†*A. caninum*, *U. stenocephala*, *A. braziliense*
***A. caninum*, *U. stenocephala*

EXTERNAL PARASITE PROTECTION

pyrantel chewable tablets
[sarolaner, moxidectin, and lotilaner]

FLEA-FREE IS THE WAY TO BE

In a study, 100% of dogs were flea-free after three months of treatment with Credelio compared to just 93.2% of dogs treated with NexGard.⁶

INTERCEPTOR[®] PLUS
(milbemycin oxime/praziquantel)

TASTY, CHICKEN-FLAVORED CHEW

- Accepted by 96.6% of dogs tested
- Approved for dogs and puppies 2 pounds of body weight or greater and 6 weeks of age or older

5-WORM PROTECTION

- Heartworm disease, tapeworms, whipworms, hookworms and roundworms

IDEAL FOR ACTIVE DOGS

- Dogs can be exposed to parasites by playing outside and/or visiting dog parks, boarding facilities or pet groomers

Prior to administration of Interceptor Plus, dogs should be tested for existing heartworm infections.

Credelio[®]
(lotilaner)

SMALL, BEEF-FLAVORED CHEWABLE TABLET

- Accepted by 100% of dogs tested⁶
- Gentle enough for pups and dogs as small as 4.4 pounds and as young as 8 weeks old

ACTS FAST

- Starts to kill ticks (*I. ricinus*) and fleas in just 4 hours

BROAD-SPECTRUM TICK EFFICACY*

- Kills four common species of ticks, including those that may transmit Lyme disease, Rocky Mountain spotted fever, ehrlichiosis, babesiosis and anaplasmosis

EXTRA-PURIFIED ACTIVE INGREDIENT

- The active molecule mixture is purified to leave only the active portion, lotilaner, in the final product
- Benefits include decreased possibility of potential side effects⁷, less work for the dog's body to process⁸ and strong protection in a smaller tablet that's easy to give⁸

**I. scapularis*, *A. americanum*, *R. sanguineus*, *D. variabilis*

Seresto[®]

CONVENIENT, LONG-LASTING

- Easy-to-apply, non-greasy and odorless—not like flea and tick collars of the past
- For dogs and puppies 7 weeks of age and older

INNOVATIVE INGREDIENT COMBINATION

- Flumethrin and imidacloprid work better together for dual action against fleas and ticks
- Kills fleas and the four major tick species that regularly infest pets[†]

PATENTED, SUSTAINED-RELEASE TECHNOLOGY

- Enables each collar to slowly release actives in low doses over 8 continuous months
- Spreads from head to toes, all the way to the tip of the tail⁹

AN ALTERNATIVE OPTION

- Gives clinics another tool to meet more pet owner flea and tick needs
- Sold in over 8,000 veterinary clinics nationwide¹⁰

[†]Deer ticks, American dog ticks, Brown dog ticks, Lone Star ticks

Please see Credelio and Interceptor Plus Important Safety Information on back page

CHOOSE COMPREHENSIVE COVERAGE, INSIDE AND OUT

	INTERNAL PARASITE PROTECTION		
	INTERCEPTOR PLUS (milbemycin oxime/praziquantel)	Heartgard Plus (ivermectin/pyrantel)	Simparica Trio™ (sarolaner, moxidectin, and pyrantel chewable tablets)
HEARTWORM DISEASE	✓	✓	✓
TAPEWORMS	✓		
WHIPWORMS	✓		
HOOKWORMS	✓*	✓†	✓**
ROUNDWORMS	✓	✓	✓

	EXTERNAL PARASITE PROTECTION		
	Seresto	NexGard® (afoxolaner)	Simparica Trio™ (sarolaner, moxidectin, and pyrantel chewable tablets)
FLEAS	✓	✓	✓
TICKS	✓	✓	✓

Based on label comparison.

**A. caninum*

†*A. caninum*, *U. stenocephala*, *A. braziliense*

***A. caninum*, *U. stenocephala*

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THE ELUSIVE TAPEWORM

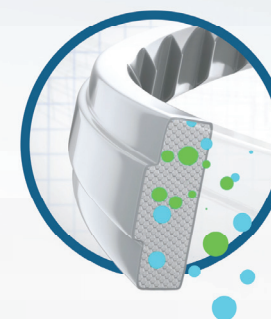
Tapeworm eggs are heavy and do not float easily. This is one of the reasons fecal flotations are thought to underestimate the frequency of tapeworm infection.¹¹

WHIPWORMS ARE WICKED

In a recent study, passive fecal flotations performed by veterinarians only recovered 37.7% of whipworm infections.¹²

EFFECTIVE, EASY 8-MONTH ALTERNATIVE

For 8 months, Seresto[®] maintained 99-100% efficacy against fleas (24 hours post-application) and 98-100% efficacy against ticks (48 hours post-application).^{13,14}



HOW PATENTED, SUSTAINED-RELEASE TECHNOLOGY MAKES THE 8-MONTH DURATION OF SERESTO[®] POSSIBLE

- Stores active ingredients
- Releases in low, controlled doses
- Replenishes throughout the 8 months