

1 NAME OF THE VETERINARY MEDICINAL PRODUCT

Veloxa XL Chewable Tablets for Dogs

2 QUALITATIVE AND QUANTITATIVE COMPOSITION

Each chewable tablet contains:

<u>Active substances</u>	mg
Febantel	525.0
Pyrantel	175.0
(corresponding to Pyrantel Embonate	504.0)
Praziquantel	175.0

For the full list of excipients, see section 6.1.

3 PHARMACEUTICAL FORM

Chewable tablet.

Brownish, oval, divisible tablet. It can be divided into equal parts.

4 CLINICAL PARTICULARS

4.1 Target Species

Dogs.

4.2 Indications for use, specifying the target species

Anthelmintic for treatment of mixed infections by the following roundworms and tapeworms in dogs over 17.5 kg:

Ascarids: *Toxocara canis*, *Toxascaris leonina* (adult and late immature forms)

Hookworms: *Uncinaria stenocephala*, *Ancylostoma caninum* (adults)

Whipworms: *Trichuris vulpis* (adults)

Tapeworms: *Echinococcus* spp., *Taenia* spp. and *Dipylidium caninum* (adult and immature forms).

4.3 Contraindications

Do not use in animals with a known hypersensitivity to any of the active substances or the excipients. Please see also sections 4.7 and 4.8.

4.4 Special warnings for each target species

Parasite resistance to any particular class of anthelmintic may develop following frequent, repeated use of an anthelmintic of that class.

Fleas serve as intermediate hosts for one common type of tapeworm – *Dipylidium caninum*.

Tapeworm infestation is certain to reoccur unless control of intermediate hosts such as fleas, mice, etc. is undertaken.

4.5 Special precautions for use

Special precautions for use in animals

Chewable tablet for smaller dogs is recommended for use in dogs less than 17.5 kg bodyweight.

Tapeworm infestation is unlikely in pups less than 6 weeks of age.

The tablets are flavoured. In order to avoid any accidental ingestion, store tablets out of reach of animals.

To minimise the risk of re-infestation and new infestation, excreta should be collected and properly disposed of for 24 hours following treatment.

Special precautions to be taken by the person administering the veterinary medicinal product to animals

In the interests of good hygiene, persons administering the chewable tablet directly to a dog or by adding it to the dog's food, should wash their hands afterwards.

In case of accidental ingestion, seek medical advice immediately and show the package leaflet or the label to the physician.

Other precaution

Since it contains praziquantel, the product is effective against *Echinococcus spp.* which do not occur in all EU member states but are becoming more common in some. *Echinococcosis* represents a hazard for humans. As *Echinococcosis* a notifiable disease to the World Organisation for Animal Health (OIE), specific guidelines on the treatment and follow-up, and on the safeguard of persons, need to be obtained from the relevant competent authority.

4.6 Adverse reactions (frequency and seriousness)

In very rare cases (less than 1 animal in 10,000 animals, including isolated reports) transient, mild gastrointestinal signs (e.g. vomiting) may occur.

4.7 Use during pregnancy, lactation or lay

Teratogenic effects attributed to high doses of febantel have been reported in sheep and rats. No studies have been performed in dogs during early pregnancy. Use of the product during pregnancy should be in accordance with a benefit/risk assessment by the responsible veterinarian. It is recommended that the product is not used in dogs during the first 4 weeks of pregnancy. Do not exceed the stated dose when treating pregnant bitches. The chewable tablets may be used during lactation.

4.8 Interaction with other medicinal products and other forms of interaction

Do not use simultaneously with piperazine as the anthelmintic effects of pyrantel and piperazine may be antagonized. Concurrent use with other cholinergic compounds can lead to toxicity.

Plasma concentrations of praziquantel may be decreased by concomitant administration with drugs that increase the activity of cytochrome P-450 enzymes (e.g. dexamethasone, phenobarbital).

4.9 Amounts to be administered and administration route

For oral administration only.

Dosage

1 chewable tablet per 35 kg bodyweight (15 mg febantel, 5 mg pyrantel (as embonate) and 5 mg praziquantel/kg body weight).

<i>Body weight (kg)</i>	<i>Number of chewable tablets</i>
17.5	1/2
>17.5 -35	1
>35 -52.5	1 ½
>52.5 -70	2

Do not use for treatment of dogs weighing less than 17.5 kg (i.e. <17.5 kg). To ensure administration of a correct dose, body weight should be determined as accurately as possible.

Administration

The chewable tablets can be given directly to the dog or disguised in food. No starvation is needed before or after treatment.

Due to a lipid-coating of praziquantel and added flavour, the chewable tablets are taken by most dogs voluntarily.

Duration of Treatment

A single dose shall be used. If there is a risk for re-infestation, the advice of a veterinarian should be sought regarding the need for and the frequency of repeat administration.

4.10 Overdose (symptoms, emergency procedures, antidotes), if necessary

In safety studies, a single dose of 5 times the recommended dose or greater gave rise to occasional vomiting.

4.11 Withdrawal period(s)

Not applicable.

5 PHARMACOLOGICAL or IMMUNOLOGICAL PROPERTIES

Pharmacotherapeutic group: Anthelmintics, febantel combinations.

ATC Vet Code: QP52AA51

5.1 Pharmacodynamic properties

In this fixed combination product pyrantel and febantel act against all relevant nematodes (ascarids, hookworms and whipworms) in dogs. In particular, the activity spectrum covers *Toxocara canis*, *Toxascaris leonina*, *Uncinaria stenocephala*, *Ancylostoma caninum* and *Trichuris vulpis*. This combination shows synergistic activity in the case of hookworms and febantel is effective against *T. vulpis*.

The spectrum of activity of praziquantel covers all important cestode species in dogs, in particular all *Taenia spp*, *Dipylidium caninum*, *Echinococcus granulosus* and *Echinococcus multilocularis*. Praziquantel acts against adult and immature forms of these parasites.

Praziquantel is very rapidly absorbed and distributed throughout the parasite. Both in vitro and in vivo studies have shown that praziquantel causes severe damage to the parasite integument, resulting in contraction and paralysis. There is an almost

instantaneous tetanic contraction of the parasite musculature and a rapid vacuolisation of the syncytial tegument. This rapid contraction has been explained by changes in divalent cation fluxes, especially calcium.

Pyrantel acts as a cholinergic agonist. Its mode of action is to stimulate nicotinic cholinergic receptors of the parasite, induce spastic paralysis and thereby allow removal from the gastro-intestinal (GI) system by peristalsis.

Within the mammalian system febantel undergoes ring closure forming fenbendazole and oxfendazole. It is these chemical entities which exert the anthelmintic effect by inhibition of tubulin polymerization. Formation of microtubules is thereby prevented, resulting in disruption to structures vital to the normal functioning of the helminth. Glucose uptake, in particular, is affected, leading to depletion in cell ATP. The parasite dies upon exhaustion of its energy reserves, which occurs 2-3 days later.

5.2 Pharmacokinetic particulars

After oral administration, praziquantel is almost completely absorbed from the intestinal tract. After absorption, the drug is widely distributed in the organism, metabolized into inactive forms in the liver and secreted in bile. It is excreted within 24 hours to more than 95% of the administered dosage.

The embonate salt of pyrantel has low aqueous solubility an attribute that reduces absorption from the gut and allows the drug to reach and be effective against parasites in the large intestine. Following absorption, pyrantel embonate is quickly and almost completely metabolised into inactive components which are rapidly excreted in the urine.

Febantel is an inactive pro-drug which is absorbed and then metabolised relative rapidly to a number of metabolites, including fenbendazole and oxfendazole, which have anthelmintic activity.

Following the single oral administration of this veterinary medicinal product the maximum plasma concentrations of praziquantel, pyrantel, fenbendazole and oxfendazole were found 327, 81, 128 and 165 ng/ml and were obtained after 2.2, 4.5, 5.2 and 6.3 hours.

6 PHARMACEUTICAL PARTICULARS

6.1 List of excipients

Cetyl palmitate
Starch, pregelatinised
Sodium starch glycolate (type A)
Colloidal anhydrous silica
Magnesium stearate
Artificial beef flavour

6.2 Major incompatibilities

Not applicable.

6.3 Shelf-life

Shelf-life of the veterinary medicinal product as packaged for sale: 3 years.

Shelf-life of half tablets: 2 days.

6.4 Special precautions for storage

This medicinal product does not require any special storage conditions.

Keep the blister in the outer carton. Each time an unused half tablet is stored it should be returned to the open blister space and the blister inserted back into the outer carton.

6.5 Nature and composition of immediate packaging

PVC/Aluminium/Polyamide blister-forming laminate with aluminium lidding foil containing 2 chewable tablets.

- Box containing 1 blister strip of 2 chewable tablets (2 chewable tablets)
- Box containing 2 blister strips of 2 chewable tablets (4 chewable tablets)
- Box containing 4 blister strips of 2 chewable tablets (8 chewable tablets)
- Box containing 24 blister strips of 2 chewable tablets (48 chewable tablets)
- Box containing 48 blister strips of 2 chewable tablets (96 chewable tablets)

Not all pack sizes may be marketed.

6.6 Special precautions for the disposal of unused veterinary medicinal products or waste materials derived from the use of such products

Any unused veterinary medicinal products or waste materials derived from such veterinary medicinal products should be disposed of in accordance with local requirements.

7 MARKETING AUTHORISATION HOLDER

LAVET Pharmaceuticals Ltd
H-1161 Budapest
Otto u 14
Hungary

8 MARKETING AUTHORISATION NUMBER(S)

VPA10482/003/001

9 DATE OF FIRST AUTHORISATION/RENEWAL OF THE AUTHORISATION

Date of first authorisation: 18th January 2013
Date of latest renewal: 31st March 2017

10 DATE OF REVISION OF THE TEXT

January 2018