Veterinary Physician's Prescribing Information

EQVALAN VETERINARY

1. NAME OF THE VETERINARY MEDICINAL PRODUCT: EQVALAN VETERINARY

2. QUALITATIVE AND QUANTITATIVE COMPOSITION:
Each gram contains:
Active substance: Ivermectin 18.7 mg
Excipients: Titanium Dioxide (E171) 20.0 mg
For the full list of excipients, see section 6.1.

3. PHARMACEUTICAL FORM: Oral paste. Clean, white, homogeneous paste.

4. CLINICAL PARTICULARS:
4.1 Target species: Horses.

4.2 Indications for use, specifying the target species:
The product is indicated for the treatment of stomach & intestine parasitic infestations in horses.
In the recommended dose, the product has parasitical action against:
Stomach & intestine roundworms (adults & arterial larval stages of *Strongylus vulgaris*, adults & tissue larval stages of *S. edentatus*), adults of *S. equinus*, adults of *Triodontophorus spp*., adults & immature forms of "small" Strongyloides: *Clucodontophorus spp*., *Cycliocyclus spp*. and *Cyathostomum spp*.
Adults & immature forms of *Oxyuris equi*, and adults & immature forms of *Habronema musca*, *Parascaris equorum* and *Trichostrongylus axei*.
Stomach parasites: various forms of *Gastrophilus spp.*

EQVALAN has parasitical action in one dose against the main internal parasites in horses. EQVALAN contains ivermectin, which has a wide range of parasitical activity, and is not a benzimidazole compound and not an organic phosphorus compound.

4.3 Contra-indications: The product has been formulated specifically for use in horses only. Dogs and cats may be adversely affected by the concentration of ivermectin in this product if they are allowed to ingest spilled paste or have access to used syringes.

4.4 Special warnings for each target species: Care should be taken to avoid the following practices because they increase the risk of development of resistance and could ultimately result in ineffective therapy:
- Too frequent and repeated use of anthelmintics from the same class, over an extended period of time.
- Underdosing, which may be due to underestimation of body weight, misadministration of the product, or lack of calibration of the dosing device.

Suspected clinical cases of resistance to anthelmintics should be further investigated using appropriate tests (e.g. Faecal Egg Count Reduction Test). Where the results of the test (s) strongly suggest resistance to a particular anthelmintic, an anthelmintic belonging to another pharmacological class and having a different mode of action should be used.

Resistance to macrocyclic lactones (which includes ivermectin) has been reported in Parascaris equorum in horses in a number of countries within the EU. Therefore, the use of

this product should be based on local (regional, farm) epidemiological information about susceptibility of gastro-intestinal nematodes and recommendations on how to limit further selection for resistance to anthelmintics.

4.5 Special precautions for use:
Special precautions for use in animals: No special precautions are required.

Special precautions to be taken by the person administering the veterinary medicinal product to the animals:
Do not smoke, eat or drink while handling the product.
Wash hands after use.
This product may cause skin and eye irritation. Therefore, the user should avoid contact of the product with the skin and the eyes. In the case of contact, rinse immediately with plenty of water.
In the case of accidental ingestion or eye irritation after contact seek medical advice immediately and show the package insert or the label to the physician.

4.6 Adverse reactions (frequency and seriousness): Some horses carrying heavy infection of Onchocerca microfilariae have experienced oedema and pruritus following dosing, assumed to be the result of death of large numbers of microfilariae. These signs resolve within a few days but symptomatic treatment may be advisable.

Reporting of suspected adverse reactions: Reporting suspected adverse reactions after authorization of the medicinal product is important. It allows continued monitoring of the benefit/risk balance of the medicinal product. Any suspected adverse events should be reported to the Ministry of Health according to the National Regulation by using an online form: https://sideeffects.health.gov.il/

4.7 Use during pregnancy, lactation or lay: Horses of all ages, including pregnant mares and breeding stallions, have been treated with no adverse effect.

4.8 Interaction with other medicinal products and other forms of interaction: The product has been used in conjunction with other equine health care products and no interactions have been identified.

4.9 Amounts to be administered and administration route: Administer orally to horses at the recommended dose level of 0.2 mg ivermectin per kilogram of bodyweight. Each syringe delivers 120 mg ivermectin, sufficient to treat 600 kg of bodyweight.

To ensure administration of a correct dose, body weight should be determined as accurately as possible; accuracy of the dosing device should be checked.

Dosing instructions: Each weight marking on the syringe plunger will deliver sufficient paste to treat 100 kg bodyweight. Unlock the knurled ring by making 1/4 turn and slide the knurled ring up the plunger shaft so that the side nearest the barrel is at the prescribed weight marking. Turn the knurled ring 1/4 turn to lock in place. Remove the plastic cap from the tip of the nozzle. Make sure the horse's mouth contains no feed. Insert the syringe into the horse's mouth at the interdental space. Advance the plunger as far as it will go, depositing the medication on the base of the tongue. Immediately raise the horse’s head for a few seconds after dosing and ensure that the paste is consumed.

Parasite control program: Veterinary advice should be given on appropriate dosing programs and stock management to achieve adequate parasite control for both tapeworm and

roundworm infestations. Foals may be treated initially at 6-8 weeks of age if indicated. Discard any unused material.

4.10 Overdose (symptoms, emergency procedures, antidotes), if necessary: Mild transitory signs (slowed pupillary light response and depression) have been seen at a dose of 1.8 mg/kg (9 times the recommended dose level). Other signs seen at higher doses include mydriasis, ataxia, tremors, stupor, coma and death. The less severe signs have been transitory. No antidote has been identified; however, symptomatic therapy may be beneficial.

4.11 Withdrawal periods: Not applicable.

5. PHARMACOLOGICAL or IMMUNOLOGICAL PROPERTIES: ATC Vet Code: QP54AA01.

5.1 Pharmacodynamic properties: Ivermectin is a member of the macrocyclic lactone class of endectocides which have a unique mode of action. Compounds of the class bind selectively and with high affinity to glutamate-gated chloride ion channels which occur in invertebrate nerve and muscle cells. This leads to an increase in the permeability of the cell membrane to chloride ions with hyperpolarization of the nerve or muscle cell, resulting in paralysis and death of the parasite. Compounds of this class may also interact with other ligand-gated chloride channels, such as those gated by the neurotransmitter gamma-aminobutyric acid (GABA).
The margin of safety for compounds of this class is attributable to the fact that mammals do not have glutamate-gates chloride channels, the macrocyclic lactones have a low affinity for other mammalian ligand-gated chloride channels and they do not readily cross the blood-brain barrier.

5.2 Pharmacokinetic properties:
Maximum plasma concentration: In the horse the maximum plasma concentration (average of 32 ng/ml) is reached 6 hours after administration of a dose rate of 0.3 mg ivermectin per kg bodyweight. This peak falls off gradually to an average level of 2 ng/ml at 10 days.

Excretion: length of time and route: Ivermectin residues (expressed as dihydro B1a) in the liver, muscle, kidney, fat and blood were determined with a liquid chromatographic method with fluorescence detection. No residue (except one 28 day fat sample) reached the limit of detection of > 2 ppb 21, 28 and 42 days post dose.

6. PHARMACEUTICAL PARTICULARS
6.1 List of excipients: Propylene Glycol, Hydrogenated Castor Oil, Hydroxypropylcellulose and Titanium Dioxide (E171).

6.2 Major Incompatibilities: None known.

6.3 Shelf-life: The expiry date of the product is indicated on the syringe and box. Do not use after the expiry date.
Shelf life after first opening the immediate packaging: use immediately after opening (for one or more horse) and discard unused material.

6.4 Special precautions for storage: Store below 25°C. Protect from light.
6.5 Nature and composition of immediate packaging: Disposable white, opaque, polypropylene syringe barrel and plunger with a white, opaque, low density polyethylene cap.
Each syringe contains 6.42 g paste.
Each carton contains 1 syringe.

6.6 Special precautions for the disposal of unused veterinary medicinal product or waste materials derived from the use of such products, if appropriate:
Container disposal: EXTREMELY DANGEROUS TO FISH AND AQUATIC LIFE. Do not contaminate ponds, waterways or ditches with the product or used container.
Any unused veterinary medicinal product or waste materials derived from such veterinary medicinal products should be disposed of in accordance with local requirements.

7. Israeli Drug Registration Number: 081-83-91484-00

8. Manufacturer: Boehringer Ingelheim Animal Health France SCS, Lyon, France (manufactured with Boehringer Ingelheim Animal Health do Brasil Ltda., Paulinia, São Paulo, Brazil and Boehringer Ingelheim Animal Health France SCS, Toulouse, France).

9. Israeli Marketing Authorization Holder: Beit Erez Havat Milatin Ltd., P.O.B. 209, Mishmar Hashiva 5029700, Israel.

10. Revised on: 10/2021 according to MOH's guidelines
[Internal code: EQVLN-VET-DCTR-10/21 dated 10/10/2021]