

Summary of Product Characteristics

1 NAME OF THE VETERINARY MEDICINAL PRODUCT

Doxycare Flavour 40 mg Tablets for Cats and Dogs

2 QUALITATIVE AND QUANTITATIVE COMPOSITION

Each tablet contains:

Doxycycline 40 mg
(equivalent to 47.88 mg of doxycycline hyclate)

For the full list of excipients, see section 6.1.

3 PHARMACEUTICAL FORM

Tablet

Yellowish, round and convex tablet with a cross-shaped break line on one side.

Tablets can be divided into 2 or 4 equal parts.

4 CLINICAL PARTICULARS

4.1 Target Species

Cats and dogs

4.2 Indications for use, specifying the target species

Treatment of bacterial respiratory tract infections in cats and dogs, due to organisms sensitive to doxycycline including: *Staphylococcus aureus* and other *Staphylococcus* spp., *Streptococcus* spp., *Bordetella bronchiseptica*, and *Pasteurella* spp.

Treatment of tick -borne *Ehrlichia canis* infection in dogs.

4.3 Contraindications

Do not use in cases of hypersensitivity to the active substance, to other tetracyclines or to any of the excipients.

Do not use in cases of dysphagia or diseases accompanied by vomiting.

Do not use in cases of vomiting, oesophagitis and oesophageal ulcerations see section 4.6.

4.4 Special warnings for each target species

Canine ehrlichiosis: the treatment should be initiated as soon as the occurrence of 1st clinical signs. The dog can remain a carrier of the bacteria even after prolonged antibiotic treatments and can be the source of new tick infestations (disease's vector).

4.5 Special precautions for use

Special precautions for use in animals

Do not exceed the recommended dosage.

As tablets are flavoured store tablets out of reach of the animals in order to avoid accidental ingestion.

Due to the likely variability (time, geographical) in the occurrence of resistance of bacteria for doxycycline, bacteriological sampling and susceptibility testing are recommended. Official, national and regional antimicrobial policies should be taken into account when the product is used. Use of the product deviating from the instructions given in the SPC may increase the

prevalence of bacteria resistant to doxycycline and may decrease the effectiveness of treatment with other tetracyclines, due to the potential for cross-resistance.

In order to reduce the likelihood of oesophageal irritation as well as other gastrointestinal side effects, such as vomiting, the product should be administered together with food.

Special care should be taken when administering the product to animals with liver disease, since increases in hepatic enzymes have been documented in some animals after doxycycline treatment.

The product should be administered with caution to young animals, since tetracyclines as a class may cause permanent discolouration of the teeth, when administered during tooth development. However, human literature indicates that doxycycline is less likely than other tetracyclines to cause these abnormalities, due to its reduced ability to chelate calcium.

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

Tetracyclines may cause hypersensitivity (allergy) reactions.

People with known hypersensitivity to tetracyclines should avoid contact with the veterinary medicinal product.

Wash hands after use.

If you develop symptoms following exposure such as skin rash, seek medical advice immediately and show the package leaflet to the physician.

Doxycycline may cause gastrointestinal disturbances after accidental ingestion, especially by children. To avoid accidental ingestion, unused tablet parts should be returned to the open blister space and inserted back into the carton. In case of accidental ingestion, seek medical advice.

4.6 Adverse reactions (frequency and seriousness)

Gastrointestinal disorders such as vomiting, diarrhoea, oesophageal ulceration and oesophagitis have been reported as side effects following doxycycline therapy.

In very young animals discoloration of the teeth may occur by the formation of a tetracycline-calcium phosphate complex. Hypersensitivity reactions, photosensitivity and in exceptional cases photodermatitis may occur after exposure to intense daylight.

Retardation of skeletal growth of young animals (reversible upon discontinuation of therapy) is known to occur with use of other tetracyclines and might occur following administration of doxycycline.

4.7 Use during pregnancy, lactation or lay

Laboratory studies have not revealed any teratogenic or embryotoxic effect of doxycycline in the rat and rabbit. The safety of the veterinary medicinal product has not been established during pregnancy and lactation. Tetracyclines as a class can retard foetal skeletal development (fully reversible) and cause discolouration of the deciduous teeth. The use of the product is not recommended during pregnancy and lactation.

4.8 Interaction with other medicinal products and other forms of interactions

Cross resistance to other tetracyclines can occur.

Doxycycline should not be used concurrently with other antibiotics especially bactericidal drugs such as the β -lactams.

The half-life of doxycycline is reduced by concurrent administration of barbiturates or phenytoin.

Administration of oral absorbents, iron preparations and antacids from 3 hours before to 3 hours after the administration of doxycycline should be avoided as they reduce doxycycline availability. In humans tetracycline may increase the bioavailability of digoxin. No information is available in dog and cat.

4.9 Amounts to be administered and administration route

Oral use. The dosage is 10 mg doxycycline per kilogram of bodyweight per day.

The majority of routine cases are expected to respond after between 5 and 7 days of therapy. Therapy should continue for 2 to 3 days beyond clinical cure for acute infections. In chronic cases or refractory cases, a longer course of therapy, up to 14 days may be required.

For treatment of infections caused by *Ehrlichia canis* the dose is 10 mg doxycycline /kg of bodyweight/day for 28 days.

Complete eradication of the pathogen is not always achieved but extended treatment for 28 days leads to a resolution of the clinical signs and a reduction of the bacterial load. Longer duration of treatment, based on a benefit: risk assessment by the responsible veterinarian, may be required in severe and chronic ehrlichiosis. All treated patients should be regularly monitored even after clinical cure.

Tablets should be administered with food (see section 4.5). To ensure a correct dosage body weight should be determined as accurately as possible to avoid underdosing.

Tablets can be divided into 2 or 4 equal parts to ensure accurate dosing. Place the tablet on a flat surface, with its scored side facing up and the convex (rounded) side facing the surface.

Halves: press down with your thumbs or fingers on both sides of the tablet.

Quarters: press down with your thumb or finger in the middle of the tablet.

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

Hepatic cytolysis and cholestasis have been observed on dogs after administration of the product at 30 or 50 mg/kg for 5 consecutive days. These signs were associated with increased hepatic parameters (ALT, GGT, total bilirubin). Some vomiting can occur in dogs with five times the recommended dosage. For cats, no adverse effects have been reported after administration of up to 50 mg/kg/day for 5 consecutive days.

4.11 Withdrawal period(s)

Not applicable.

5 PHARMACOLOGICAL or IMMUNOLOGICAL PROPERTIES

Pharmacotherapeutic group: Antibacterials for systemic use, Tetracyclines

ATC vet code: QJ01AA02

5.1 Pharmacodynamic properties

Doxycycline is a second generation, broad spectrum tetracycline.

It is active against a large number of Gram positive and Gram negative pathogens including strains resistant to first generation tetracyclines.

It is essentially bacteriostatic; it inhibits the bacterial protein synthesis by blocking binding of transfer RNA to the messenger RNA-ribosome complex.

There are several known mechanisms of resistance to tetracyclines such as doxycycline but the two most common are energy dependant efflux systems and ribosomal protection proteins.

Resistance is mainly mediated by efflux pumps or ribosomal protection proteins. Cross-resistance among tetracyclines is common but depends on resistance mechanisms: i.e. mutation in efflux pumps that renders resistance to tetracycline may still be sensitive to doxycycline.

5.2 Pharmacokinetic particulars

After oral administration in dogs and cats at the recommended dose of 10 mg/kg, doxycycline reaches the maximal plasma concentration (T_{max}) within 24 hours. The peak concentration (C_{max}) is 1.4 µg/ml and 4.3 µg/ml in dogs and cats respectively. The oral bioavailability of doxycycline after repeated administration is approximately 45% in both species and is not affected by the presence of food.

In spite of a high protein binding rate, the volume of distribution of doxycycline is high demonstrating that doxycycline is broadly distributed in organs and tissues. This is due to high liposolubility of doxycycline.

Doxycycline is mainly excreted as unchanged drug and eliminated in faeces and urine. Mean elimination half-life is 8.37 hours in cats.

6 PHARMACEUTICAL PARTICULARS

6.1 List of excipients

Sodium starch glycolate (type A)
Cellulose microcrystalline
Yeast extract
Magnesium stearate

6.2 Major incompatibilities

Not applicable.

6.3 Shelf-life

Shelf-life of the veterinary medicinal product as packaged for sale: 30 months

6.4 Special precautions for storage

This veterinary medicinal product does not require any special storage conditions.
Any remaining tablet portion should be returned to the blister and given at the next administration.

6.5 Nature and composition of immediate packaging

OPA/Aluminium/PVC foil and Aluminium foil blister containing 10 tablets

Cardboard box of 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, or 250 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 product or waste materials derived from such veterinary medicinal product should be disposed of in accordance with local requirements.

7 MARKETING AUTHORISATION HOLDER

Ecuphar NV
Legeweg 157-I
8020 Oostkamp
Belgium

8 MARKETING AUTHORISATION NUMBER(S)

VPA10491/013/001

9 DATE OF FIRST AUTHORISATION/RENEWAL OF THE AUTHORISATION

Date of first authorisation: 25th October 2019

10 DATE OF REVISION OF THE TEXT