IPAR

Publicly Available Assessment Report for a
Veterinary Medicinal Product

Marbocare flavour 5 mg tablets for dogs and cats

PRODUCT SUMMARY

EU Procedure number	IE/V/0563/001 (formerly UK/V/0470/001)
Name, strength and pharmaceutical form	Marbocare flavour 5 mg tablets for dogs and cats
Active substances(s)	Marbofloxacin
Applicant	Emdoka bvba John Lijsenstraat 16 B-2321 Hoogstraten Belgium
Legal basis of application	Generic applications in accordance with Article 13 (1) of Directive 2001/82/EC as amended.
Target species	Dogs, cats
Indication for use	Dogs Marbofloxacin is indicated in the treatment of the following infections caused by susceptible strains of organisms • Skin and soft tissue infections (skinfold pyoderma, impetigo, folliculitis, furunculosis, cellulitis). • Urinary tract infections (UTI) associated or not with prostatitis or epididymitis. • Respiratory tract infections. Cats • Skin and soft tissue infections (wounds, abscesses, phlegmons) • Upper respiratory tract infections
ATCvet code	QJ01MA93
Date of completion of the original decentralised procedure	26 June 2013 (UK) 20 September 2013 (IE)
Date product first authorised in the Reference Member State (MRP only)	Not applicable.
Concerned Member States	Austria, Belgium, Germany, Ireland (now RMS), Luxembourg, The Netherlands, Portugal, Spain IE added via RMS change

PUBLIC ASSESSMENT REPORT

The public assessment report reflects the scientific conclusion reached by the HPRA at the end of the evaluation process and provides a summary of the grounds for approval of the marketing authorisation for the specific veterinary medicinal product. It is made available by the HPRA for information to the public, after the deletion of commercially confidential information. The legal basis for its creation and availability is contained in Article 25.4 of EC Directive 2001/82/EC as amended by Directive 2004/28/EC for veterinary medicinal products. It is a concise document which highlights the main parts of the documentation submitted by the applicant and the scientific evaluation carried out by the HPRA leading to the approval of the product for marketing in Ireland.
The Summary of Product Characteristics (SPC) for this product is available on the HPRA's website.

I. SCIENTIFIC OVERVIEW

Applications for these products were submitted in accordance with Article 13 (1) of Directive 2001/82/EC as amended, for generic applications. The reference products are Marbocyl P5 mg Tablets, Marbocyl P20 mg Tablets and Marbocyl P80 mg Tablets, marketed in the UK since June 2003. Marbocyl 5 mg Tablets Marbocyl 20 mg Tablets and Marbocyl 80 mg Tablets, are part of a global marketing authorisation and were first marketed in the UK in February 1995.

The products are as follows: Marbocare 5 mg Flavour Tablets for Dogs and Cats, for the treatment of skin and soft tissue infections in dogs (skinfold pyoderma, impetigo, folliculitis, furunculosis and cellulitis), and urinary tract infections associated or not with prostatitis or epididymitis, and respiratory tract infections. In cats, for skin and soft tissue infections such as wounds, abscesses phlegmons and upper respiratory tract infections. Marbocare 20 mg and 80 mg Flavour Tablets for Dogs are indicated for skin and soft tissue infections in dogs (skinfold pyoderma, impetigo, folliculitis, furunculosis and cellulitis), and urinary tract infections associated or not with prostatitis or epididymitis, and respiratory tract infections. Suitable warnings and precautions are indicated in the respective SPCs, (Summary of Product Characteristics).

The product is produced and controlled using validated methods and tests which ensure the consistency of the product released on the market. It has been shown that the product can be safely used in the target species, the slight reactions observed are indicated in the SPC. The product is safe for the user, and for the environment, when used as recommended. The efficacy of the product was demonstrated according to the claims made in the SPC. The overall benefit/risk analysis is in favour of granting a marketing authorisation.

II. QUALITY ASPECTS

A. Composition

The products contain the active substance marbofloxacin and the excipients lactose monohydrate povidone (K90), silica, (colloidal hydrated), crospovidone (Type A), castor oil, (hydrogenated), dessicated pork liver powder, dried yeast and magnesium stearate.
The container/closure system for the products is formed of an aluminium- PVC/aluminium/polyamide blister. The 5 mg and 20 mg products are packaged as:

- Box containing 1 blister of 10 tablets (10 tablets)
- Box containing 2 blisters of 10 tablets (20 tablets)
- Box containing 10 blisters of 10 tablets (100 tablets)

The 80 mg product is packaged as:-

- Box containing 2 blisters of 6 tablets (12 tablets)
- Box containing 12 blisters of 6 tablets (72 tablets)

The particulars of the containers and controls performed are provided and conform to the regulation. The choice of the formulation and the absence of preservative are justified. The products are an established pharmaceutical form and development is adequately described in accordance with the relevant European guidelines.

B. Method of Preparation of the Product

The product is manufactured fully in accordance with the principles of good manufacturing practice from a licensed manufacturing site. Process validation data on the product have been presented in accordance with the relevant European guidelines. Ingredients are weighed and mixed with purified water as appropriate, then sieved and dried before being compressed and packed.

C. Control of Starting Materials

The active substance is marbofloxacin, an established active substance described in the European Pharmacopoeia (Ph. Eur). The active substance is manufactured in accordance with the principles of good manufacturing practice.

The active substance specification is considered adequate to control the quality of the material. Batch analytical data demonstrating compliance with this specification have been provided. Data were provided from two Active Substance Master Files.

Excipients listed in the Ph. Eur are: lactose monohydrate, crospovidone (Type A), silica (colloidal hydrated), povidone (K90), magnesium stearate, castor oil (hydrogenated), and purified water. Not listed in a pharmacopoeia are pork liver powder and dried yeast powder, which are prepared according to in-house specifications.

D. Specific Measures concerning the Prevention of the Transmission of Animal Spongiform Encephalopathies
The products contain lactose which is sourced from milk fit for human consumption. The products also contain liver powder manufactured from pork livers sourced from animals fit for human consumption.

E. Control on intermediate products
Not applicable.

F. Control Tests on the Finished Product
The finished product specification controls the relevant parameters for the pharmaceutical form. The tests in the specification, and their limits, have been justified and are considered appropriate to adequately control the quality of the product. Satisfactory validation data for the analytical methods have been provided. Batch analytical data from the proposed production site have been provided demonstrating compliance with the specification. These tests include those for identification, description, disintegration, weight, friability, hardness, thickness, diameter, dissolution and microbial examination.

G. Stability
Stability data on the active substance have been provided in accordance with applicable European guidelines, demonstrating the stability of the active substance when stored under the approved conditions. For the finished products, stability studies were carried out were provided for 18 months for the 80 mg tablets and 24 months for the 5 and 20 mg tablets. These data were acceptable. Suitable photostability studies were also conducted.

H. Genetically Modified Organisms
Not applicable.

J. Other Information
Shelf-life of the veterinary medicinal products as packaged for sale is 3 years.
The veterinary medicinal products do not require any special storage conditions.

The 20 mg product and 80 mg product consist of divisible tablets. Unused divided tablets should be returned to the blister pack and any divided tablet portions remaining after 96 hours (4 days) should be discarded.

III SAFETY AND RESIDUES ASSESSMENT (PHARMACO-TOXICOLOGICAL)

As this is a generic application according to Article 13, and bioequivalence was demonstrated via essential similarity with a reference product by means of relative dissolution studies and by data on solubility studies, results of pharmacological and toxicological tests were not required.

Warnings and precautions as listed on the product literature are the same as those of the reference product and are adequate to ensure safety of the product to users and the environment.

III.A Safety Testing
User Safety
The applicant provided a user safety assessment in compliance with the relevant guideline which showed that the hazards, the level of exposure to the user and risk characterisation would be the same as for the reference products and therefore the same user warnings should be included on the SPC and product literature. Warnings and precautions as listed on the product literature are adequate to ensure safety to users of the product:-

- People with known hypersensitivity to (fluoro)quinolones should avoid using this product. Avoid contact of the skin and eyes with the product. In case of accidental ingestion seek medical advice immediately and show the package leaflet or the label to the physician. Wash hands after use.

Ecotoxicity
The applicant provided a Phase I environmental risk assessment in compliance with the relevant guideline which showed that no further assessment is required. It was concluded that the products are for oral administration only and there will be minimal exposure of the products to the outside environment during administration. The products are for use in non-food animals (cats and dogs), the assessment therefore stops at Phase I. Warnings and precautions as listed on the product literature are adequate to ensure safety to the environment when the product is used as directed.

IV. CLINICAL ASSESSMENT

As this is a generic application according to Article 13, and bioequivalence with a reference product has been demonstrated via dissolution studies, efficacy studies are not required. The efficacy claims for this product are equivalent to those of the reference product.

IV.A Pre-Clinical Studies
Pharmacology
The applicant conducted suitable dissolution studies and provided bibliographical data to demonstrate the comparative dissolution profiles of the proposed and reference products, and to confirm the solubility of marbofloxacin in the target species. Solubility tests on raw active substance were carried out at pH 7.4, pH 4.5 and pH 1.2, dissolution studies were also carried out at these pH values. All data were acceptable.

Tolerance in the Target Species of Animals
As bioequivalence was established between proposed products and reference products, no data were required for this section.

Resistance
The SPCs contain appropriate warnings regarding development of resistance and responsible use of antimicrobials.

IV.B Clinical Studies
As bioequivalence was established between proposed products and reference products, no data were required for this section.

V. OVERALL CONCLUSION AND BENEFIT/RISK ASSESSMENT

The data submitted in the dossier demonstrate that when the product is used in accordance with the Summary of Product Characteristics, the benefit/risk profile for the target species is favourable and the quality and safety of the product for humans and the environment is acceptable.