Veterinary Medicines Directorate

United Kingdom
Veterinary Medicines Directorate
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DECENTRALISED PROCEDURE

PUBLICLY AVAILABLE ASSESSMENT REPORT FOR A VETERINARY MEDICINAL PRODUCT

Marbim 100 mg/ml Solution for Injection for Cattle and Pigs

PuAR correct as of 07/02/2018 when RMS was transferred to IE. Please contact the RMS for future updates

Date Created: November 2016

MODULE 1

PRODUCT SUMMARY

EU Procedure number	UK/V/0552/001/DC
Name, strength and pharmaceutical form	Marbim 100 mg/ml Solution for Injection for Cattle and Pigs
Applicant	Bimeda Animal Health Limited 2 , 3, 4 Airton Close Tallaght Dublin 24 Ireland
Active substance(s)	Marbofloxacin
ATC Vetcode	QJ01MA93
Target species	Cattle and Pigs
Indication for use	In Cattle: Treatment of respiratory infections caused by sensitive strains of *Pasteurella multocida, Mannheimia haemolytica* and *Mycoplasma bovis.* Treatment of acute mastitis caused by *E. coli* strains sensitive to marbofloxacin during the lactation period. In Pigs (sows): Treatment of Metritis Mastitis Agalactia syndrome (postpartum dysgalactia syndrome, PDS) caused by susceptible strains of organisms.

MODULE 2

The Summary of Product Characteristics (SPC) for this product is available on the Product Information Database of the Veterinary Medicines Directorate.

(www.gov.uk/check-animal-medicine-licensed)

MODULE 3

PUBLIC ASSESSMENT REPORT

Legal basis of original application	Generic application in accordance with Article 13 (1) of Directive 2001/82/EC as amended.
Date of completion of the original decentralised procedure	19th October 2016.
Date product first authorised in the Reference Member State (MRP only)	Not applicable.
Concerned Member States for original procedure	Austria, Belgium, France, Germany, Ireland, Italy, Spain.

I. SCIENTIFIC OVERVIEW

This was a generic application in accordance with Article 13 (1) of Directive 2001/82/EC, as amended. The reference product was Marbocyl 10% Solution for Injection, marketed in the UK since February 1997. The product is indicated for use in cattle and pigs:

In Cattle:

Treatment of respiratory infections caused by sensitive strains of *Pasteurella multocida*, *Mannheimia haemolytica* and *Mycoplasma bovis*.

Treatment of acute mastitis caused by *E. coli* strains sensitive to marbofloxacin during the lactation period.

The recommended dose rate is 2 mg/kg/day (1 ml/50 kg) in a single daily injection by the intramuscular, subcutaneous, or intravenous routes for 3-5 days.

In Pigs (sows):

Treatment of Metritis Mastitis Agalactia syndrome (postpartum dysgalactia syndrome, PDS) caused by susceptible strains of organisms.

The recommended dose rate is 2 mg/kg/day (1 ml/50 kg) in a single daily injection by the intramuscular route, for 3 days.

The product is produced and controlled using validated methods and tests which ensure the consistency of the product released onto the market. It has been shown that the product can be safely used in the target species, any reactions observed are indicated in the SPC.[1] The product is safe for the user, the consumer of foodstuffs from treated animals and for the environment, when used as recommended. Suitable warnings and precautions are indicated in the SPC.

[1] SPC – Summary of product Characteristics.

The efficacy [2] 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. QUALITATIVE AND QUANTITIATIVE PARTICULARS OF THE CONSTIUENTS

II.A. Composition

The product contains 100 mg/ml marbofloxacin and the excipients monothioglycerol, metacresol, disodium edetate, gluconolactone, sodium hydroxide (for pH adjustment), hydrochloric acid (for pH adjustment) and water for injections.

The container/closure system consists of amber type II glass vials containing 50 ml and 100 ml. The vials are closed with either chlorobutyl or bromobutyl rubber stopper and oversealed with aluminium caps. Each vial is packaged in an outer carton. The particulars of the containers and controls performed are provided and conform to the regulation.

The choice of the formulation and the presence of preservative are justified. The product is an established pharmaceutical form and its development is adequately described in accordance with the relevant European guidelines.

II.B. Description of the Manufacturing Method

The product is manufactured fully in accordance with the principles of good manufacturing practice from a licensed manufacturing site. The manufacturing method is adequately described.

Process validation data on the product have been presented in accordance with the relevant European guidelines.

II.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. Reference to suitable ASMF was provided. All excipients with the exception of pH adjusters comply with either Ph. Eur or United States Pharmacopoeial monographs. Suitable specifications were provided for the packaging materials.

[2] Efficacy – The production of a desired or intended result.

II.C.4. Substances of Biological Origin

There are no substances within the scope of the TSE Guideline present or used in the manufacture of this product.

II.D. Control Tests Carried Out at Intermediate Stages of the Manufacturing Process

Not applicable.

II.E. 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. Control tests on the finished product include those for: appearance, colour, pH identity and assay of the active substance and key excipients, impurities, sterility and extractable volume.

II.F. Stability

Stability data on the active substance and finished product have been provided in accordance with applicable European guidelines, demonstrating the stability of the active substance when stored under the approved conditions.

G. Other Information

Shelf-life of the veterinary medicinal product as packaged for sale: 2 years.

Shelf-life after first opening the immediate packaging: 28 days.

Keep the vial in the outer carton in order to protect from light.

III. SAFETY AND RESIDUES DOCUMENTATION (PHARMACO-TOXICOLOGICAL)

As this is a generic application according to Article 13 (1), and chemical equivalence with a reference product has been demonstrated, results of pharmacological and toxicological tests are 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, the environment and consumers.

III.A Safety Documentation

User Safety

A user risk assessment was provided in compliance with the relevant guideline. 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, or any of the excipients, should avoid contact with the product.
- Avoid contact of the skin and eyes with the product. In case of accidental spillage onto skin or eyes, rinse the affected area with plenty of clean water.
- Avoid accidental self-injection, since this can cause local irritation. In case of self-injection or ingestion, seek medical advice immediately and show the package leaflet or the label to the physician.
- Wash hands after use.

Environmental Safety

A suitable environmental risk assessment was submitted, which ended at Phase I. The warnings on the SPC and product literature are the same as those of the reference product, and provide sufficient information on the product when used as directed.

III.B.2 Residues documentation

Residue Studies

No residue depletion studies were conducted because bioequivalence with the reference product was accepted by means of chemical equivalence.

MRLs

Marbofloxacin is listed in Table 1 of the annex to European Commission Regulation 37/2010. The marker substance is marbofloxacin.

MRLs (µg/kg) are listed below:

	Bovine	Porcine
Muscle	150	150
Liver	150	150
Kidney	150	150
Fat / skin	50	50
Milk	75	-

Withdrawal Periods

Based on data, the following withdrawal periods are justified:

Cattle: Meat and offal: 6 days.
Milk: 36 hours

Pigs: Meat and offal: 4 days.

IV CLINICAL DOCUMENTATION

As this is a generic application according to Article 13 (1) and equivalence with a reference product has been established by essential similarity, efficacy studies are not required. The efficacy claims for this product are equivalent to those of the reference product.

IV.I. Pre-Clinical Studies

Tolerance in the Target Species

As this is a generic application according to Article 13 (1) and equivalence with a reference product has been established by essential similarity, tolerance studies are not required. The tolerance claims for this product are equivalent to those of the reference product.

Resistance

Adequate warnings and precautions appear on the product literature.

IV.II. Clinical Documentation

As this is a generic application according to Article 13 (1) and equivalence with a reference product has been established by essential similarity, clinical studies are not required. The efficacy claims for this product are equivalent to those of the reference product.

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 of the product(s) is favourable.

MODULE 4

POST-AUTHORISATION ASSESSMENTS

The SPC and package leaflet may be updated to include new information on the quality, safety and efficacy of the veterinary medicinal product. The current SPC is available on the Product Information Database of the Veterinary Medicines Directorate website.

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The post-authorisation assessment (PAA) contains information on significant changes which have been made after the original procedure which are important for the quality, safety or efficacy of the product.

The PAA for this product is available on the Product Information Database of the Veterinary Medicines Directorate website.

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