ASSURING THE SAFETY, QUALITY AND EFFICACY OF VETERINARY MEDICINES

United Kingdom
Veterinary Medicines Directorate
Woodham Lane
New Haw
Addlestone
Surrey KT15 3LS
(Reference Member State)

MUTUAL RECOGNITION PROCEDURE

PUBLICLY AVAILABLE ASSESSMENT REPORT FOR A VETERINARY MEDICINAL PRODUCT

Enroxil 100mg/ml Oral Solution for Chickens and Turkeys

Updated: July 2018

MODULE 1

PRODUCT SUMMARY

EU Procedure number	UK/V/0225/001/A/008
Name, strength and pharmaceutical form	Enroxil 100mg/ml Oral Solution for Chickens and Turkeys
Applicant	KRKA, d.d., Novo mesto Šmarješka cesta 6 8501 Novo mesto Slovenia
Active substance	Enrofloxacin
ATC Vetcode	QJ01MA90
Target species	Broilers, broiler breeders, replacement chickens, turkeys
Indication for use	Treatment of infections caused by the following bacteria susceptible to enrofloxacin: Chickens *Mycoplasma gallisepticum,* *Mycoplasma synoviae,* *Avibacterium paragallinarum,* *Pasteurella multocida,* Turkey *Mycoplasma gallisepticum,* *Mycoplasma synoviae,* *Pasteurella multocida,*

MODULE 2

The Summary of Product Characteristics (SPC) for this product is available on the Heads of Medicines Agencies (veterinary) (HMA(v)) website (www.hma.eu).

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 mutual recognition procedure	27th September 2006
Date product first authorised in the Reference Member State (MRP only)	09th September 2005
Concerned Member States for original procedure	Germany Luxembourg

I. SCIENTIFIC OVERVIEW

This was a generic application made in accordance with Article 13 (1) of Directive 2001/82/EC as amended. The reference product was Baytril 10% Oral Solution, marketed in the UK since November 1993. The product is intended for broilers, broiler breeders, replacement chickens and turkeys, in order to treat infections caused by a variety of bacteria susceptible to enrofloxacin. The dose is 10 mg enrofloxacin/kg bodyweight for 3-5 consecutive days. As advised in the SPC[1], alternative treatment based on susceptibility testing should be considered if no clinical improvement is seen within 2-3 days.

The product is produced and controlled using validated methods and tests which ensure the consistency of the product released on to the market. It has been shown that the product can be safely used in the target species. 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.

The efficacy of the product was demonstrated according to the claims made in the SPC. The overall risk/benefit analysis is in favour of granting a marketing authorisation.

1

II. QUALITY ASPECTS

A. Composition

The product contains enrofloxacin 100 mg and the excipients benzyl alcohol, hydroxypropylmethycellulose, potassium hydroxide, and purified water.

The container/closure system is a 100 ml glass bottle, provided with a measuring cup. Additionally, the product is provided in a 1 litre bottle, also with measuring cup. The particulars of the containers and controls performed are provided and conform to the regulation. The choice of the formulation is justified.

The product is an established pharmaceutical form and its 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.

C. Control of Starting Materials

The active substance is enrofloxacin, an established active substance. 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.

D. Specific Measures concerning the Prevention of the Transmission of Animal Spongiform Encephalopathies

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

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 sites have been provided demonstrating compliance with the specification.

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.

Stability data on the finished product have been provided in accordance with applicable European guidelines, demonstrating the stability of the product throughout its shelf life when stored under the approved conditions.

The claim for 24 hours stability after dilution is based on the demonstration of stability for a batch diluted and stored in a plastic bucket for 24 hours.

H. Genetically Modified Organisms

Not applicable.

J. Other Information

- Shelf-life of the veterinary medicinal product as packaged for sale: 5 years.
- Shelf-life after first opening the immediate packaging: 28 days.
- Shelf-life after dilution: 24 hours.
- Do not use after the expiry date stated on the label.

III. SAFETY AND RESIDUES ASSESSMENT (PHARMACO-TOXICOLOGICAL)

III.A Safety Testing

Pharmacological Studies

Since the application was made in accordance with Article 13 (1) of Directive 2001/82/EC, as amended, for a generic veterinary medicinal product, data on pharmacodynamics and pharmacokinetics were not required. The data submitted were in accordance with the requirements of the applicable European bioequivalence guideline.

Toxicological Studies

Since the application was made in accordance with Article 13 (1) of Directive 2001/82/EC, as amended, for a generic veterinary medicinal product, this information was not required.

User Safety

The risk management measures that the applicant proposes for this product are the same as for the reference product (Baytril 10% Oral Solution). The SPC

presented confirms this. The same warnings are in the relevant section of the SPC for this product as for the reference product:-

- Personal protective equipment consisting of impervious gloves should be worn when handling the veterinary medicinal product.
- Wash any splashes from skin or eyes immediately with water.
- Wash hands and exposed skin after use.
- Do not eat, drink or smoke while using the product.

Ecotoxicity

The applicant provided a first phase environmental risk assessment in compliance with the relevant guideline which showed that no further assessment is required. The assessment concluded that warnings and precautions as listed on the product literature are adequate to ensure safety to the environment when the product is used as directed.:-

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

III.B Residues documentation

Residue Studies

Since the application was made in accordance with Article 13 (1) of Directive 2001/82/EC, as amended, for a generic veterinary medicinal product, this information was not required.

MRLs

Enrofloxacin is entered into Annex I of Council Regulation (EEC) No. 2377/90 in accordance with the following table:

Pharmacologically active substance(s)	Marker residue	Animal species	MRLs	Target tissues	Other provisions
Enrofloxacin	Sum of enrofloxacin and ciprofloxacin	Poultry	100 µg/kg 100 µg/kg 200 µg/kg 300 µg/kg	Muscle Skin +fat Liver Kidney	Not for use in animals from which eggs are produced for human consumption

Withdrawal Periods

The withdrawal periods are established as being:-

Chickens: Meat and offal: 7 days
Turkeys: Meat and offal: 13 days
Not authorised for use in laying birds producing eggs for human consumption.

Do not administer to layer replacement birds within 14 days of coming into lay.

IV CLINICAL ASSESSMENT (EFFICACY)

IV.A Pre-Clinical Studies

Pharmacology

Since the application is made in accordance with Article 13 (1) of Directive 2001/82/EC, as amended, for a generic veterinary medicinal product, this information was not required. The action of enrofloxacin is an inhibition of DNA gyrase within the target bacterial cell, thus inhibiting replication. The normal gut flora of the treated animal is spared, as the active substance has minimal effect on this.

Tolerance in the Target Species of Animals

Since the application is made in accordance with Article 13 (1) of Directive 2001/82/EC, as amended, for a generic veterinary medicinal product, this information was not required.

IV.B Clinical Studies

Laboratory Trials

Since the application is made in accordance with Article 13 (1) of Directive 2001/82/EC, as amended, for a generic veterinary medicinal product, this information was not required.

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.

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.

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

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.

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