



Veterinary
Medicines
Directorate

United Kingdom
Veterinary Medicines Directorate
Woodham Lane
New Haw
Addlestone
Surrey KT15 3LS

DECENTRALISED PROCEDURE

**PUBLICLY AVAILABLE ASSESSMENT REPORT FOR A VETERINARY
MEDICINAL PRODUCT**

**Zobuxa 15 mg Tablets for Cats and Small Dogs
Zobuxa 50 mg Tablets for Cats and Dogs
Zobuxa 150 mg Tablets for Dogs**

**PuAR correct as of 24/04/2018 when RMS was transferred to DE.
Please contact the RMS for future updates**

MODULE 1

PRODUCT SUMMARY

EU Procedure number	UK/V/0376/001/DC UK/V/0376/002/DC UK/V/0376/004/DC
Name, strength and pharmaceutical form	Zobuxa 15 mg Tablets for Cats and Small Dogs Zobuxa 50 mg Tablets for Cats and Dogs Zobuxa 150 mg Tablets for Dogs
Applicant	Elanco Europe Ltd
Active substance	Enrofloxacin
ATC Vetcode	QJ01MA90
Target species	Dogs, cats
Indication for use	Treatment of bacterial infections of the alimentary, respiratory and urogenital tracts, skin, wound infections and otitis externa.

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 decentralised procedure	27 th July 2011
Date product first authorised in the Reference Member State (MRP only)	Not applicable.
Concerned Member States for original procedure	Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Hungary, Italy, The Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden.

I. SCIENTIFIC OVERVIEW

These were was an application via the decentralised procedure for three generic products, submitted in accordance with Article 13 (1) of Directive 2001/82/EC, as amended by 2004/28/EC. Bioequivalence was claimed with the reference product, Baytril Flavour Tablets 15 mg. Reference products used in bioequivalence studies were and Baytril Flavour 15 mg Tablette für Katzen und Hunde, and Baytril Flavour 50 mg Tablette für Katzen und Hunde in dogs and cats respectively. The products contain 15 mg, 50 mg or 150 mg of enrofloxacin, and the indication is for the treatment of bacterial infections of the alimentary, respiratory and urogenital tracts, skin, wound infections and otitis externa. The dose for the 15 mg product is 5 mg enrofloxacin/kg/bodyweight once daily (1 tablet per 3 kg bodyweight), for 5-10 consecutive days. For the 50 mg product, the dose is 5 mg enrofloxacin/kg/bodyweight once daily, for 5-10 days, which is equivalent to 1 tablet per 10 kg bodyweight. For the 150 mg product, the dose is 5 mg/kg bodyweight once daily for 5-10 consecutive days, equivalent to 1 tablet per 30 kg bodyweight.

The products are produced and controlled using validated methods and tests which ensure the consistency of the products released on the market. It has been shown that the products can be safely used in the target species, the slight reactions observed are indicated in the SPC¹. The products are safe for the user, and for the environment, when used as recommended. Suitable warnings and precautions are indicated in the SPC. The efficacy of the products was demonstrated according to the claims made in the SPC. The overall benefit/risk analysis is in favour of granting a marketing authorisation.

¹ SPC – Summary of Product Characteristics.

II. QUALITY ASPECTS

A. Composition

The products contain enrofloxacin and excipients lactose monohydrate, microcrystalline cellulose, povidone (K-30), croscarmellose sodium, silica, (colloidal anhydrous), magnesium stearate and artificial beef flavour.

The container system is an aluminium foil blister contained in a box with 10 or 100 tablets, 10 tablets per blister. 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 the development is adequately described in accordance with the relevant European guidelines.

B. Method of Preparation of the Product

The products are manufactured fully in accordance with the principles of good manufacturing practice from a licensed manufacturing site. Process validation data on the products have been presented in accordance with the relevant European guidelines. The ingredients are granulated and dried, prior to sieving through an oscillating screen. The mixture is used to make any of the presentations.

C. Control of Starting Materials

The active substance is enrofloxacin, 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. All excipients (apart from the beef flavouring which is tested in accordance with the applicant's specifications), are cited in the Ph. Eur.

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

Declarations were provided in compliance with the Note for Guidance on Minimising the Risk of Transmitting Animal Spongiform Encephalopathy Agents via Human and Veterinary Medicinal Products.

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 products.

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. Tests are for appearance, dimensions, dissolution, identification, enrofloxacin assay, uniformity of dosage, purity and microbiological purity.

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. A retest period of three years was deemed satisfactory for the active substance.

H. Genetically Modified Organisms

Not applicable.

J. Other Information

Shelf-life of the veterinary medicinal products as packaged for sale: 3 years.
Shelf-life after first opening the blisters: 2 days.

III. SAFETY AND RESIDUES ASSESSMENT (PHARMACO-TOXICOLOGICAL)

As these are generic applications according to Article 13 (1), and bioequivalence with a reference product has been demonstrated, results of pharmacological and toxicological tests are not required. Refer to the SPC for recent updates (2017) with regard to adverse reactions in the target species.

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 products to users and the environment.

III.A Safety Testing

User Safety

The applicant has provided a user safety assessment in compliance with the relevant guideline which shows that the products are safe when used as directed, in line with precautions cited on the reference product. Warnings and precautions as listed on the product literature are adequate to ensure safety to users of the products.

- Wash hands after handling the product.
- People with known hypersensitivity to fluoroquinolones should avoid contact with the product.
- In case of contact with eyes, wash immediately with plenty of clean water.
- In case of accidental self injection, seek medical advice immediately and show the package leaflet to the physician.
- Do not smoke, eat or drink while handling 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 as the products are to be used in dogs and cats, exposure to the environment will be minimal, and the products are not expected to pose a risk when used as directed.

Warnings and precautions as listed on the product literature are adequate to ensure safety to the environment when the products are used as directed.

IV CLINICAL ASSESSMENT (EFFICACY)

As these are generic applications according to Article 13, and bioequivalence with a reference product has been demonstrated, efficacy studies are not required. The efficacy claims for these products are equivalent to those of the reference product. Refer to the SPC for recent updates (2017) with regard to adverse reactions in the target species.

IV.A Pre-Clinical Studies

Pharmacology

Pharmacokinetics

Two pivotal bioequivalence studies were submitted. The first GLP²-compliant study was a two-way, cross-over, single dose, two treatment trial comparing Baytril Flavour 15 mg Tabletten and a generic formulation of enrofloxacin tablets in cats. A suitable number of animals were given one dose of either the test product or reference product, and samples taken at suitable time points. After a 14 day washout period, the animals received the reciprocal product, and final analysis showed that bioequivalence between the test product and reference product was achieved. A similar study was performed in dogs, in which 50 mg products were used, and a seven day washout period was utilised. Bioequivalence was demonstrated for product and reference product in this second assay. Two pilot studies, one in dogs and one in cats, supported the findings of the pivotal studies. Dissolution studies confirmed that the product at all strengths was suitably dissolved.

Tolerance in the Target Species of Animals

No data were required in this section of the application, as these were generic applications and tolerance data are equivalent to those of the reference product. The SPC and product literature were updated accordingly to match current requirements.

Resistance

No data were required in this section of the application, as these were generic applications and resistance data are equivalent to those of the reference product. The SPC and product literature were updated accordingly to match current requirements.

IV.B Clinical Studies

No clinical data were required, as these were generic applications.

² GLP – Good Laboratory Practise.

V OVERALL CONCLUSION AND BENEFIT– RISK ASSESSMENT

The data submitted in the dossier demonstrate that when the products are 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 products 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