Veterinary
Medicines
Directorate

United Kingdom
Veterinary Medicines Directorate
Woodham Lane
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NATIONAL PROCEDURE

PUBLICLY AVAILABLE ASSESSMENT REPORT FOR A VETERINARY MEDICINAL PRODUCT

Triquest 333 mg/ml + 67 mg/ml Oral Suspension for Horses

Date Created: November 2024

MODULE 1

PRODUCT SUMMARY

Name, strength and pharmaceutical form	Triquest 333 mg/ml + 67 mg/ml Oral Suspension for Horses
Applicant	Alfasan Nederland B.V., Kuipersweg 9, 3449 JA Woerden, 3449, The Netherlands
Active substance	Sulfadiazine Trimethoprim
ATC Vetcode	QJ01EW10
Target species	Horses
Indication for use	For the treatment of infections in horses caused by micro-organisms susceptible to the combination of trimethoprim and sulfadiazine, such as infections of the upper respiratory tract, the urogenital system and wound infections.

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 hybrid application in accordance with Article 8 of VMRs 2013 (Schedule 1, Para 10a) as amended.
Date of conclusion of the procedure	09/08/24

I. SCIENTIFIC OVERVIEW

This is a generic hybrid application with the reference product being Trimediazine Plain Oral Powder that has been authorised in the UK since 1992. This application is considered a generic hybrid as this product has a different strength and pharmaceutical form to the reference product. Bioequivalence has been established.

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, any reactions observed are indicated in the SPC.[1] The product is safe for the user, and for the environment, when used as recommended. Suitable warnings and precautions are indicated in the SPC. 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 QUANTITATIVE PARTICULARS OF THE CONSTITUENTS

II.A. Composition

The product contains sulfadiazine and trimethoprim and the excipients xanthan gum, sucralose, sodium hydroxide, anise aroma, hydrochloric acid and purified water.

The container/closure system consists of a HDPE bottle closed with a tamper proof polypropylene cap and an LDPE plug cap. 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.

[1] SPC – Summary of product Characteristics.
[2] Efficacy – The production of a desired or intended result.

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.

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

II.C. Control of Starting Materials

The active substances are sulfadiazine and trimethoprim, established active substances described in a certificate of suitability. The active substances are 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, except for anise flavour, are described in Ph. Eur.

II.C.4. Substances of Biological Origin

Scientific data and/or certificates of suitability issued by the EDQM have been provided and compliance with the Note for Guidance on Minimising the Risk of Transmitting Animal Spongiform Encephalopathy Agents via Human and Veterinary Medicinal Products has been satisfactorily demonstrated.

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 are those suitable for this pharmaceutical form.

II.F. Stability

Stability data on the active substances have been provided in accordance with applicable regulatory 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.

G. Other Information

Shelf life of the veterinary medicinal product as packaged for sale: 3 years
Shelf life after first opening the immediate packaging: 30 days
This veterinary medicinal product does not require any special storage conditions.

III. SAFETY AND RESIDUES DOCUMENTATION (PHARMACO-TOXICOLOGICAL)

III.A Safety Documentation

Pharmacological Studies

Not required due to the legal basis of the application. Bioequivalence was established.

Toxicological Studies

Not required due to the legal basis of the application.

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. Therefore the following applicant's user recommendations are appropriate:,

This product contains sulfadiazine, a sulfonamide which can cause hypersensitivity (allergic) reactions following skin contact or accidental ingestion. Hypersensitivity to sulfonamides may lead to cross reactions with other antibiotics. Allergic reactions to sulfonamides may occasionally be serious.
If symptoms develop following exposure, such as a skin rash or difficulty with breathing, seek medical advice immediately and show the package leaflet or the label to the physician.

This product may cause gastrointestinal disturbances, or irritation of the skin and eyes, after exposure. Wearing impervious gloves is recommended when administering the product. In the case of contact with skin, wash with soap and water. In the case of contact with the eyes, rinse thoroughly with water.

Environmental Safety

The Environmental Risk Assessment (ERA) was carried out in accordance with VICH and CVMP guidelines.

Phase I:

The product will be used to treat a small number of animals in a flock or herd and as such environmental exposure will be low. A Phase II ERA was not required.

III.B.2 Residues documentation

Residue Studies

No residue depletion studies were conducted because of the legal basis of the application.

MRLs

All substances are included in the GB MRL list or are considered out of scope.

Withdrawal Periods

Based on the data provided, a withdrawal period of 6 months for meat in horses. Not authorised for use in mares producing milk for human consumption.

IV. CLINICAL DOCUMENTATION

IV.I. Pre-Clinical Studies

Pharmacology

The applicant has conducted studies describing the pharmacodynamic and pharmacokinetic properties of the active substance. Sulfadiazine is a bacteriostatic antibiotic belonging to the sulphonamide group which acts by interference with the synthesis of nucleic acids. Trimethoprim is a reductase inhibitor which also interferes with the synthesis of bacterial nucleic acids.
Trimethoprim and sulfadiazine each have a bacteriostatic action, but together they have a synergistic bactericidal effect by intervening in two consecutive steps of the bacterial folate metabolism. The combination of trimethoprim and sulfadiazine has a broad antibacterial spectrum for both gram positive and gram negative bacteria.
Chromosomal mutation and plasmid-mediated resistance are described for sulphonamides and its combinations. Resistance is widespread among bacteria

isolated from animals reflecting extensive use over time. There is complete cross-resistance between sulphonamides.
Following a single oral administration of the veterinary medicinal product to horses at a dose of 30 mg/kg BW (5 mg/kg TMP and 25 mg/kg SDZ) the mean peak plasma concentration (Cmax) was 1821.06 ng/ml for TMP and 19235.74 ng/ml for SDZ, and was reached after a median of 1.8 hours (Tmax ranged from 0.67 to 4 hours) for TMP and a median of 3 hours (Tmax ranged from 0.67 to 9 hours) for SDZ.

Both substances are metabolized in the liver; sulfadiazine by acetylation and glucuronidation and trimethoprim by hydroxylation and glucuronidation.
Excretion is primarily by the kidney, only to a lesser extent in the faeces.

The plasma elimination half-life for TMP was 2.4 hours and for SDZ was 6.1 hours.

Tolerance in the Target Species

Tolerance studies were not required because of the legal basis of the application.

IV.II. Clinical Documentation

Not required due to the legal basis of the application.

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 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.

(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.

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