IPAR

Publicly Available Assessment Report for a
Veterinary Medicinal Product

Multishield DC Intramammary Suspension for Cows

"This product was originally authorised under an EU procedure prior to 1st January 2021 where the UK participated as a Concerned Member State. Therefore, the contents of this Public Assessment Report are not owned by the Veterinary Medicines Directorate. Please contact the original Reference Member State for any queries in relation to this report."

PRODUCT SUMMARY

EU Procedure number	IE/V/0277/001/DC
Name, strength and pharmaceutical form	Multishield DC Intramammary Suspension for Cows
Active substance(s)	Neomycin sulphate Penethamate hydriodide Procaine Benzylpenicillin
Applicant	Bimeda Animal Health Limited 2, 3 & 4 Airton Road Airton Close Tallaght Dublin 24 Ireland
Legal basis of application	Generic application in accordance with Article 13(1) of Directive 2001/82/EC as amended.
Date of completion of procedure	21st December 2012
Target species	Cows (at dry off)
Indication for use	Treatment of subclinical mastitis caused by bovine mastitis organisms sensitive to the combination of active substances, penicillin and neomycin, and as part of strategy for the prevention of new infections occurring during the dry period.
ATCvet code	QJ51RC
Concerned Member States	BE, CZ, DE, DK, ES, FR, HU, IT, NL, PL, PT, RO, SK, UK

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

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, 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 benefit/risk analysis is in favour of granting a marketing authorisation.

II. QUALITY ASPECTS

A. Qualitative and Quantitative Particulars

The product contains neomycin sulphate 100 mg, penethamate hydriodide 100 mg, benzylpenicillin, procaine 400 mg and excipients liquid paraffin and aluminium di/tristearate.
The container/closure system consists of a low density polyethylene intramammary syringe, containing 4.5 g intramammary suspension.
Syringes packed in cartons of 24 syringes or buckets of 120 syringes.
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 at 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 substances neomycin sulphate and benzylpenicillin procaine, are established substances described in the European Pharmacopoeia. Penethamate hydriodide is not monographed in the Ph. Eur and its

specifications comply with an in-house monograph.The active substances are manufactured in accordance with the principles of good manufacturing practice. The active substance specifications are considered adequate to control the quality of the materials. Batch analytical data demonstrating compliance with the specifications have been provided.

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.

D. Control on Intermediate Products

Not applicable.

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 sites have been provided demonstrating compliance with the specification.

F. Stability

Stability data on the active substances 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.

G. Other Information

Not applicable.

III SAFETY AND RESIDUES ASSESSMENT (PHARMACO-TOXICOLOGICAL)

III.A Safety Testing

Pharmacological Studies

The application is made in accordance with Article 13(1) of Directive 2001/82/EC, as amended (a generic application). It was confirmed that the formulation and manufacturing process for the product is identical to that of the reference product. As a result it was accepted that the product was bioequivalent to the reference product, Osmond's Dry Cow Intramammary Suspension (VPA 10960/022/001).

As this is a generic application according to Article 13(1), and bioequivalence with a reference product has been accepted, results of pharmacological tests are not required.

The pharmacological aspects of this product reflect those of the reference product.

Toxicological Studies

As this is a generic application according to Article 13(1), and bioequivalence with a reference product has been accepted, results of toxicological tests are not provided.

User Safety

The applicant provided a user safety assessment which showed that when used in accordance with label recommendations, the product will not pose any greater risk to the user than the risks associated with use of the reference product, Osmond's Dry Cow Intramammary Suspension.

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.

Environmental Risk Assessment

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

III.B Residues Documentation

Residue Studies

The product that is the subject of the present application is identical in every respect (composition, manufacturing process) to the reference product. On this basis it can be assumed that depletion of residues from target tissues will be identical and that the authorised withdrawal periods for the reference product can be applied to the generic product.

However, in order to confirm the proposed withdrawal periods, the applicant presented the findings of two confirmatory residue studies.

A confirmatory meat residue study using a product with an identical formulation to the product proposed for marketing was conducted in dairy cows.Samples of tissues were taken from animals at a single time point (28 days post treatment). Results showed that residues were below the MRL in all tissues at that time point.

Similarly, a milk residue study using a product with an identical formulation to the product proposed for marketing was conducted in dairy cows. Samples of milk were taken from animals at several time points. Results showed that all residues were below the MRL in milk at all time points, including the withdrawal period.

The analytical method for both studies was LC-MS/MS. The methods were fully validated.

MRLs

Neomycin is listed in Table 1 of the Annex of Commission Regulation (EU) No. 37/2010 (O.J. 20.1.2010, L15/48).The marker substance is Neomycin B.

	CATLLE
Muscle	500 µg/kg
Liver	500 µg/kg
Kidney	5000 µg/kg
Fat/ skin	500 µg/kg
Milk	1500 µg/kg

Penethamate is listed in Table 1 of the Annex of Commission Regulation (EU) No. 37/2010 (O.J. 20.1.2010, L15/53).The marker substance is Benzylpenicillin.

	CATTLE
Muscle	50 µg/kg
Liver	50 µg/kg
Kidney	50 µg/kg
Fat/ skin	50 µg/kg

Milk	4 µg/kg

Benzylpenicillin is listed in Table 1 of the Annex of Commission Regulation (EU) No. 37/2010 (O.J. 20.1.2010, L15/11).The marker substance is Benzylpenicillin.

	CATTLE
Muscle	50 µg/kg
Liver	50 µg/kg
Kidney	50 µg/kg
Fat/ skin	50 µg/kg
Milk	4 µg/kg

Withdrawal Periods

Based on the residue data provided, a withdrawal period of 28 days for meat in cattle is justified.

For milk, the residue data supports the following: 96 hours post calving in cows with a dry period of more than 50 days or 50 days plus 96 hours after treatment from cows with a dry period of 50 days or less.

IV. CLINICAL ASSESSMENT

IV.A Pre-Clinical Studies

Tolerance in the Target Species of Animals

The product literature accurately reflects the type and incidence of adverse effects which might be expected.

Resistance

Adequate warnings and precautions appear on the product literature.

IV.B Clinical Studies

As this is a generic application according to Article 13(1), and bioequivalence with a reference product has been accepted, efficacy 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 for the target species is favourable and the quality and safety of the product for humans and the environment is acceptable.

VI. 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 HPRA website.

This section 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.

Changes:

None.