

IPAR



**Publicly Available Assessment Report for a
Veterinary Medicinal Product**

Terrexine DC 250 mg Intramammary Suspension for Dry Cows

PRODUCT SUMMARY

EU Procedure number	IE/V/0522/001/DC
Name, strength and pharmaceutical form	Terrexine DC 250 mg Intramammary Suspension for Dry Cows
Active substance(s)	Cefalonium (as cefalonium dihydrate)
Applicant	Univet Ltd. Tullyvin Cootehill County Cavan Ireland
Legal basis of application	Article 13(3) generic-hybrid application
Date of completion of procedure	31/05/2019
Target species	Cattle (dry cows)
Indication for use	For the treatment of subclinical mastitis at drying-off caused by <i>Staphylococcus aureus</i> , <i>Streptococcus agalactiae</i> , <i>Streptococcus dysgalactiae</i> , <i>Streptococcus uberis</i> , <i>Trueperella pyogenes</i> , <i>Escherichia coli</i> and <i>Klebsiella</i> spp. susceptible to cefalonium.
ATCvet code	QJ51DB90
Concerned Member States	NL

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 the active substance cefalonium (250 mg) as cefalonium dihydrate and the excipients aluminium distearate and liquid paraffin.

The container/closure system is a 3 g intramammary syringe made from low density polyethylene.

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 for the manufacturing process has been presented in accordance with the relevant European guidelines.

C. Control of Starting Materials

The active substance is cefalonium, an established substance described in the British Veterinary Pharmacopoeia. 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 has 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 has been provided.

Batch analytical data from the proposed production site has been provided demonstrating compliance with the specification.

F. Stability

Stability data on the active substance has 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 has 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)

This application was submitted in accordance with paragraph 3 of Article 13 of Directive 2001/82/EC (a "hybrid" veterinary medicinal product). The reference veterinary medicinal product is Cefravin Dry Cow Intramammary Suspension containing cefalonium (as cefalonium dihydrate) as active substance.

Pharmacological Studies

It was claimed that the candidate formulation and reference product are identical in terms of pharmaceutical form, qualitative and quantitative composition of the active substance and excipients as well as physico-chemical properties.

Both products are intramammary suspensions and they are used in the same species, for the same indications, in the same doses and using the same administration method.

The claim that the candidate formulation can be considered identical to the reference product was based on a comparison of the qualitative and quantitative composition of both products, including a comparison of physicochemical properties. Based on this data, an exemption from the requirement to conduct an *in vivo* bioequivalence study was justified in accordance with current guidance, section 7.1(d) of EMA/CVMP/016/00-Rev.2 (Guideline on the conduct of bioequivalence studies for veterinary medicinal products):

"The formulations are identical (identical active substances and excipients as well as physicochemical properties [e.g. identical

concentration, dissolution profile, crystalline form, pharmaceutical form and particle size distribution with identical manufacturing process])."

Based on the information provided, the candidate product can be considered the same as the reference product and consequently, bioequivalence between the candidate and reference formulations can be assumed. Consequently, the applicant is not required to provide the results of safety tests or of pre-clinical and clinical trials.

Toxicological Studies

As this is a hybrid application under Article 13(3) and as bioequivalence with a reference product is accepted, results of toxicological tests are not required.

The safety aspects of this product are expected to be identical to those of the reference product.

Warnings and precautions as listed on the product literature are broadly in line with those of the reference product.

User Safety

The applicant has provided a user safety assessment which shows that the risk to the user associated with this product is identical to that of the reference product. The proposed user safety statements are broadly in line with those of the reference product and are generally acceptable.

Warnings and precautions as listed on the product literature are adequate to ensure safety to users of the product:

- Penicillin and cephalosporins may cause sensitisation (allergy) following injection, inhalation, ingestion or skin contact. Sensitivity to penicillin may lead to cross-sensitivity to cephalosporin and vice versa. Allergic reactions to these substances may occasionally be serious.
- Do not handle this product if you know you are sensitised, or if you have been advised not to work with such preparations.
- Handle this product with great care to avoid exposure, taking all recommended precautions.
- If you develop symptoms following exposure such as a skin rash you should seek medical advice and show the Doctor this warning. Swelling of the face, lips or eyes or difficulty breathing are more serious symptoms and require urgent medical attention.
- Wash hands after use.
- The cleaning towels provided with the intramammary product contain isopropyl alcohol. Wear protective gloves if skin irritation due to isopropyl alcohol is known or suspected. Avoid contact with eyes because isopropyl alcohol can cause eye irritation.

Environmental Risk Assessment

The Applicant has provided an environmental impact assessment as required.

Based on the data provided, the ERA can stop at Phase I. The product is not expected to pose an unacceptable risk for the environment when used according to the SPC.

Consumer safety

As this is a hybrid application under Article 13(3) and as bioequivalence with a reference product is accepted, studies investigating the depletion of residues are not required.

The active substance cephalonium is included in table 1 of the Commission Regulation (EU) No. 37/2010 with *"No MRL required for all tissues except milk"* status.

The proposed withdrawal periods are identical to those approved for the reference product in the RMS and are considered adequate to ensure consumer safety.

IV. CLINICAL ASSESSMENT

See Part III

As this is a hybrid application under Article 13(3) and as bioequivalence with a reference product is accepted, efficacy studies are not required.

The efficacy claims for this product are expected to be equivalent to those of the reference product. In addition, it is considered that the risk to the target species will be similar for both the test and the reference products. The product literature accurately reflects the type and incidence of adverse effects which might be expected.

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.