IPAR

Publicly Available Assessment Report for a
Veterinary Medicinal Product

Ceffect 25 mg/ml suspension for injection for cattle and pigs

PRODUCT SUMMARY

EU Procedure number	IE/V/0470/001/DC (formerly UK/V/0427/001)
Name, strength and pharmaceutical form	Ceffect 25 mg/ml Suspension for Injection for Cattle and Pigs
Active substance(s)	Cefquinome (as sulphate) 25 mg
Applicant	EMDOKA bvba John Lijsenstraat, 16 B-2321 Hoogstraten Belgium
Legal basis of application	Generic application in accordance with Article 13 (1) of Directive 2001/82/EC asamended.
Target species	Cattle and pigs
Indication for use	For the treatment of bacterial infections in cattle and pigs caused by the Gram positive and Gram negative microorganisms sensitive to cefquinome. Cattle: Respiratory disease caused by *Pasteurella multocida* and *Mannheimia haemolytica*. *Digital dermatitis, infectious bulbar necrosis and acute interdigital necrobacillosis (foul in the foot).* *Acute E.coli mastitis with signs of systemic involvement.* *Calves:* *E.coli septicaemia in calves.* *Pigs:* For the treatment of bacterial infections of the lungs and respiratory tract caused by *Pasteurella multocida, Haemophilus parasuis, Actinobacillus pleuropneumoniae, Streptococcus suis*and other cefquinome-sensitive organisms. Mastitis-Metritis-Agalactia syndrome (MMA) with involvement of *E.coli, Staphylococcus* spp., *Streptococcus* spp. and other cefquinome sensitive organisms. Piglets: Reduction of mortality in cases of meningitis caused by *Streptococcus suis*. For the treatment of: Arthritis caused by *Streptococcus* spp., *E. coli* and other cefquinome-sensitive organisms. Epidermitis (mild or moderate lesions) caused by *Staphylococcus hyicus*.
ATCvet code	QJ01DE90
Date of completion of the original decentralised procedure	24 October 2012 (UK) 07 December 2012 (IE)
Date product first authorised in the Reference Member State (MRP only)	Not applicable
Concerned Member States	Austria, Belgium, Italy, Ireland (now RMS), Spain, Poland, Portugal, France, Luxembourg, Romania, Czech Republic, Hungary, Germany, The Netherlands, Slovakia UK added via RMS change

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

This was a generic application for Ceffect 25 mg/ml Suspension for Injection for Cattle and Pigs, submitted in accordance with Article 13 (1) of Directive 2001/82/EC, as amended. The product is indicated for the treatment of a variety of Gram positive and Gram negative bacterial infections sensitive to cefquinome. The reference product was Cobactan 2.5% w/v Suspension for Injection for Cattle and Pigs, marketed in the UK since 1993.
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. Composition
The product contains cefquinome (as cefquinome sulfate) and the excipients ethyl oleate and nitrogen.
The container/closure system consists of a carton containing 1, 6 or 12 Type II colourless glass vials containing 100 ml or 250 ml. The vials are closed with fluorinated bromobutyl rubber stoppers and sealed with an aluminium 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.
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. The active substance and excipient are mixed and filled into vials under suitably aseptic conditions.

C. Control of Starting Materials
The active substance is cefquinome, an established active substance not described in the European Pharmacopoeia (Ph. Eur). An in-house monograph was developed based on the Ph. Eur monograph for cefotaxime, a derivative of cefquinome. The active substance is manufactured in accordance with the principles of good manufacturing practice. Excipients are monographed in the Ph. Eur.
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
A declaration was provided in compliance with the 'Note for guidance on minimising the risk of transmissible animal spongiform encephalopathy agents via human and veterinary medicinal products No 410/01 revision 3 dated July 2011.'

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 site have been provided demonstrating compliance with the specification. Tests include those for appearance, particle size, relative density, syringeability, resuspendability, identification and sterility.

G. Stability
Stability data on the active substance were provided in accordance with applicable European guidelines, demonstrating the

stability of the active substance when stored under the approved conditions. Retest periods of 12 months and 24 months at 2-8°C were supported. For the finished product tests included those for photostability, transportation, and in-use stability.

H. Genetically Modified Organisms
Not applicable.

III SAFETY AND RESIDUES ASSESSMENT (PHARMACO-TOXICOLOGICAL)

As this is a generic application according to Article 13, and essentially similarity with a reference product has been demonstrated, results of pharmacological or toxicological tests are not required.
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, the environment and consumers.

III.A Safety Testing
User Safety
The applicant provided a user safety assessment 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:-
Cephalosporins may cause hypersensitivity (allergy) following injection, inhalation, ingestion or skin contact. Hypersensitivity to penicillins may lead to cross sensitivity to cephalosporins 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 with breathing, are more serious symptoms and require urgent medical attention.
Care should be taken to avoid accidental injection and contact with the skin. Wash hands after use.

Ecotoxicity
The applicant provided a first phase environmental risk assessment in compliance with the relevant guideline which showed that no further assessment was required. $PEC[1]_{soil}$ was calculated for all target groups, cattle calves, pigs and piglets, and all values came below the value which would require that the product be subject to further scrutiny; 100 µg/kg. Warnings and 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
Withdrawal Periods
No data were required for this section of the dossier, as the claim that the product was essentially similar to the reference product was accepted. The withdrawal periods as established for the reference product and therefore relevant to the new product are as follows:-
Cattle: meat and offal 5 days. Milk 24 hours.
Pigs: Meat and offal 3 dayss

IV. CLINICAL ASSESSMENT

As this is a generic application according to Article 13, and the product has been confirmed as being essentially similar to the reference product, efficacy studies were not required. The efficacy claims for this product are equivalent to those of the reference product.
IV.A Pre-Clinical Studies
Pharmacology
As this is a generic application according to Article 13, and the product has been confirmed as being essentially similar to the reference product, efficacy studies were not required. The efficacy claims for this product are equivalent to those of the reference product.

Tolerance in the Target Species of Animals
As this is a generic application according to Article 13, and the product has been confirmed as being essentially similar to the reference product, tolerance studies were not required.

Resistance

As this is a generic application according to Article 13, and the product has been confirmed as being essentially similar to the reference product, resistance studies were not required.

IV.B Clinical Studies

As this is a generic application according to Article 13, and the product has been confirmed as being essentially similar to the reference product, clinical studies were 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.