IPAR

Publicly Available Assessment Report for a Veterinary Medicinal Product

Clinacin 300 mg Tablets for Dogs

PRODUCT SUMMARY

EU Procedure number	IE/V/0112/004/MR
Name, strength and pharmaceutical form	Clinacin 300 mg tablets for dogs
Active substance(s)	Clindamycin Hydrochloride
Applicant	Chanelle Pharmaceuticals Manufacturing Limited Loughrea Co. Galway Ireland
Legal basis of application	Well established use application in accordance with Article 13 (a) of Directive 2001/82/EC as amended.*
Date of completion of procedure	29th October 2008
Target species	Dogs
Indication for use	For the treatment of infected wounds and oral/dental infections caused by or associated with clindamycin-sensitive species of *Staphylococcus*, *Streptococcus*, *Bacteroides,Fusobacterium necrophorum*, *Clostridium perfringes* and *Staphylococcus aureus* (osteomyelitis).
ATCvet code	QJ01FF01
Concerned Member States	AT, DE, ES, FI, FR, SE

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 possible adverse effects that may be observed following administration of the product are detailed in the SPC.
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 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 clindamycin (300 mg) and the excipients ludipress (consisting of alpha-lactose monohydrate, povidone & crospovidone) microcrystalline cellulose, sodium laurilsulfate, colloidal anhydrous silica and magnesium stearate.
The container/closure system consists of white high density polyethylene twist off plastic containers with child proof tamper evident polypropylene white twist off closures or blister packs made up of 45µm soft temper aluminium foil and 30µm hard temper aluminium foil.
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 substance is clindamycin (as clindamycin hydrochloride), an established substance described in the European 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 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 site have been provided demonstrating compliance with the specification.

F.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.
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 ASSESSMENT

III.ASafety Testing

Pharmacological Studies

Pharmacodynamics

Clindamycin is primarily a bacteriostatic antibiotic of the lincosamide group, which acts by inhibition of protein synthesis. Clindamycin is a chlorinated analogue of lincomycin.The antibiotic activity of clindamycin is based on the inhibition of bacterial synthesis.Reversible coupling to the 50 s subunit of the bacterial ribosome inhibits *inter alia* the translation of tRNA-bound amino acids, thereby preventing elongation of the peptide chain.Because of this, the mode of action of clindamycin is predominantly bacteriostatic.
Clindamycin has been shown to have *in-vitro* activity against the following organisms; *Staphylococcus* spp; *Streptococcus* spp; *Bacteroides* spp; *Fusobacterium* spp; and *Clostridium* spp.
Clindamycin and lincomycin show cross-resistance, which is common also to erythromycin and other macrolid-antibiotics.Acquired resistance can occur, by methylation of the ribosomal binding site via chromosomal mutation in gram positive organisms, or by plasmid-mediated mechanisms in gram negative organisms.
The applicant provided data previously provided for Clinacin 75mg tablets with updates to include recent information on resistance and MIC's. The data showed that although resistance to clindamycin had been recorded, no major changes in resistance patterns have occurred.

Pharmacokinetics

The applicant presented dissolution data comparing the dissolution properties of Clinacin 75mg tablets and Clinacin 300mg tablets.Overall the dissolution profiles were comparable and both tablet strengths fulfilled the *Ph. Eur.* requirements for dissolution of conventional-release dosage forms. It is concluded that equivalent bioavailability can be expected for the two tablet strengths.

Toxicological Studies

The applicant provided no new data. As the dose rate of Clinacin 300mg tablets is the same as that for Clinacin 75mg tablets, and as bioequivalence has been demonstrated, the toxicological properties of Clinacin 300mg tablets will be the same as Clinacin 75mg tablets.

Other Studies

The applicant provided no new data but included the data previously submitted for Clinacin 75mg tablets.

User Safety

The applicant provided information previously provided for Clinacin 75mg tablets, updated to include reference to Clinacin 300mg tablets.
Based on the user safety assessment it can be accepted that the risk to humans from handling or inadvertent ingestion of the higher concentration tablets is minimal as clindamycin has been authorised for human use for many years.Although the margin of safety, in terms of the number of tablets corresponding to the human therapeutic dose, is considerably less than for the lower strength tablets, it is considered that no special warnings are required. It is noted that the product is presented in child-proof containers or blister packs.
Warnings and precautions as listed on the product literature are adequate to ensure safety to users of the product.

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. The assessment concluded that the environmental safety of the product is acceptable.
Warnings and precautions as listed on the product literature are adequate to ensure safety to the environment when the product is used as directed.

IV. CLINICAL ASSESSMENT

The applicant provided data previously submitted for Clinacin 75 mg Tablets. It has been shown by means of a dissolution study that Clinacin 300 mg tablets are bioequivalent to Clinacin 75 mg tablets. As the mg/kg dose rate of Clinacin 300 mg tablets is the same as for Clinacin 75 mg tablets, and as bioequivalence has been demonstrated, it is accepted that the efficacy aspects (including target animal tolerance) of the two strengths of tablet will be identical. Recent reports of resistance and MIC data confirm that no change in efficacy is to 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.