IPAR

Public Assessment Report for a
Medicinal Product for Human Use

Scientific Discussion

Furosemide 10 mg/ml Solution for Injection or Infusion
Furosemide
PA2315/163/001

The Public Assessment Report reflects the scientific conclusion reached by the Health Products Regulatory Authority (HPRA) at the end of the evaluation process and provides a summary of the grounds for approval of a marketing authorisation for a specific medicinal product for human use. It is made available by the HPRA for information to the public, after deletion of commercially sensitive information. The legal basis for its creation and availability is contained in Article 21 of Directive 2001/83/EC, as amended. 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 medicinal product for marketing in Ireland.

CONTENTS

I. INTRODUCTION

The application is for a generic intravenous formulation (10mg/ml) of the well known loop diuretic furosemide. Furosemide Injection manufactured by Intas Pharmaceuticals Limited is a simple aequous solution of furosemide 10mg per ml in water for injections with sodium chloride and sodium hydroxide to make the fluid physically suitable for injection. The product is essentially similar to Furosemide Injection BP (10mg in 1 ml) from Antigen Pharmaceuticals Limited.

II. QUALITY ASPECTS

II.1Introduction

This application for Furosemide Injection BP 10 mg/ml is submitted in accordance with Directive 2001/83/EC Article 10 (1) generic application. The product is a solution for injection or infusion with known drug substance furosemide. The national authorisation was granted on 22nd July 2005.

II.2Drug Substance

The active substance is Furosemide, an established active substance described in the European Pharmacopoeia (Ph. Eur.), which is manufactured in accordance with Good Manufacturing Practice (GMP). The EDQM/Ph. Eur. CEP procedure is used for the active substance.

The active substance specification is considered adequate to control the quality and meets the current requirements of the monograph in the Ph. Eur. Batch analytical data demonstrating compliance with this specification have been provided for three representative batches.

The stability data generated supports a re-test period of 2 years and expiry date of five years.

II.3 Medicinal Product

II.3.1Composition

The product is a preservative free, clear, colourless or almost colourless sterile aqueous solution supplied in neutral amber glass ampoules, fill volume is 2ml or 5ml. Pack size is 10 x 2 ml and 10 x 5 ml ampoules in a cardboard box.

The active substance is Furosemide. Each ml contains 10 mg of Furosemide. The excipients are: Sodium Chloride, Sodium Hydroxide and Water for Injections.

II.3.2Pharmaceutical Development

The product is an established pharmaceutical form and its development is adequately described in accordance with the relevant European guidelines. The purpose of the development was to develop a stable product essentially similar to the reference product Furosemide Injection. Comparative analysis with the reference product on the Irish Market demonstrated essential similarity.

II.3.3 Manufacture of the Product

The product is manufactured in accordance with the principles of good manufacturing practice (GMP). The product is manufactured using conventional manufacturing techniques. A commitment has been given that the first 3 production batches shall be validated post-authorisation.

II.3.4 Control of Excipients

All excipients comply with their respective European Pharmacopoeia monographs. There are no excipients of human or animal origin used in the manufacture of the product. There are no novel excipients used in the manufacture of the product

II.3.5 Control of Finished Product

The finished product specification is adequate to control the relevant parameters for the dosage form. The release specifications for the drug product are based on the British Pharmacopoeia (BP) monograph for Furosemide Injection and the standard requirements associated with parenteral preparations. Limits in the specification have been justified and are considered appropriate for adequate quality control of the product. Satisfactory validation data for analytical methods have been provided. Batch analytical data from the proposed production site have been provided demonstrating compliance with the specification.

II.3.6Packaging Material

The product is presented in amber glass ampoules, type I with a fill volume of 2ml, 4 ml or 5ml and amber glass vials, Type I with fill volume of 25 ml according to Ph. Eur. process. The ampoules and vials are packaged in a cardboard box. Ampoule and vial drawings and test certificates are provided. The ampoules and vials comply with the requirements of Ph. Eur.

II.3.7 Stability of the Finished Product

Stability data on the finished product in the proposed packaging have been provided in accordance with EU guidelines demonstrating the stability of the product for 3 years when stored below 25^{o}C in the outer carton in order to protect from light.

II.4Discussion on chemical, pharmaceutical and biological aspects

The important quality characteristics of the product are well-defined and controlled. Satisfactory chemical and pharmaceutical documentation has been provided, assuring consistent quality of Furosemide Injection 10 mg/ml Solution for Injection.

III. NON-CLINICAL ASPECTS

This is a generic product and the applicant is not required to duplicate animal experiments done in the development of the original product – therefore there are no new data under this heading.

IV. CLINICAL ASPECTS

This is a generic product, because it is administered by injection is considered to be fully absorbed in a very short time and is exempt from the requirement to demonstrate that is absorbed at a similar rate and to a similar extent as the originator product. Thus, there are no new clinical data.

V. OVERALL CONCLUSIONS

Overall the risk benefit profile of the product is considered positive and the mutual recognition concluded without difficulty and without post-authorisation obligations.

VI. REVISION DATE

April 2019

VII. UPDATES

Scope
C.I.2.B – to harmonise the SPC/PL/Label text as committed in repeat use MRP.

Procedure number	Product Information affected	Date of start of procedure	Date of end of procedure	Approval/ non approval
IE/H/0186/001-002/II/007	SPC, PIL and labelling - addition of MR number (002)	18/09/2015	31/05/2016	Approved

MA Transfer CRN008V9D	SPC and PIL New MA holder: Accord Healthcare Ireland Ltd., (2315), Euro House, Euro Business Park, Little Island, Cork T45 K857, Ireland New PA number: PA2315/163/001	12/04/2019	12/04/2019	Approved