LÄKEMEDELSVERKET
MEDICAL PRODUCTS AGENCY

Public Assessment Report
Scientific discussion

Noradrenalin Abcur
(noradrenaline tartrate)

SE/H/1165/01/MR

This module reflects the scientific discussion for the approval of Noradrenalin Abcur. The procedure was finalised at 2012-05-21. For information on changes after this date please refer to the module 'Update'.

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I. INTRODUCTION

Abcur AB has applied for a marketing authorisation for Noradrenalin Abcur , 1 mg/ml concentrate for solution for infusion claiming essential similarity to LevoPhed 2 mg/ml, marketed in Ireland by Hospira Enterprises B.V., Randstad 22-11, 1316 BN Almere, Netherlands, since 1995. The product contains the active ingredient noradrenaline tartrate. For approved indications see the Summary of Product Characteristics.

II. QUALITY ASPECTS

II.1 Introduction

Noradrenaline Abcur is presented as a concentrate for solution for infusion containing 1 mg/ml of noradrenaline tartrate. The drug product is packaged in type 1 glass ampoules containing 4 ml, 5 ml, 8 ml or 10 ml of concentrate.

II.2 Drug Substance

The drug substance noradrenaline tartrate is the salt of the pure (*R*)-(-)-enantiomer of noradrenaline and (*R*,*R*)-(+)-tartrate. The drug substance is freely soluble in water, soluble in ethanol, and practically insoluble in chloroform and ether.

Noradrenaline tartrate is described in the European Pharmacopeia (Ph. Eur.). The manufacturer holds a Certificate of Suitability (CEP) certifying that the drug substance is suitably controlled the current version of the monograph Noradrenaline tartrate no. 285 of the Ph. Eur.

The specification includes relevant tests and the limits for impurities/degradation products have been justified. The specification meets the requirements of the Ph. Eur. as well as the CEP. The analytical methods are considered suitable.

Stability studies have been conducted and the data provided are sufficient to confirm the retest period.

II.3 Medicinal Product

Noradrenalin Abcur, 1 mg/ml concentrate for solution for infusion is formulated using excipients described in the current Ph. Eur. All exipients are controlled in accordance with the relevant monograph published in the Ph. Eur. None of the excipients are of human or animal origin.

The manufacturing process has been sufficiently described and critical steps identified. The sealed ampoules are sterilised in an autoclave according to standard conditions. Results from the process validation studies confirm that the process is under control and ensure both batch to batch reproducibility and compliance with the product specification.

The tests and limits in the specification are considered appropriate to control the quality of the finished product in relation to its intended purpose. The analytical procedures have been validated and proven suitable for their intended use.

Appropriate stability studies have been performed. The stability data support a shelf-life of 2 years, provided that the finished product is stored below 25 °C. Moreover, results from an in-use study support a physico-chemical in-use stability of 24 hours for undiluted solutions and dilutions stored at a temperature of 25 °C protected from light. Three administration alternatives were mimicked in the study; administration from glass vials, from plastic infusion bags or from an infusion pump. The dilutions were prepared using 5 % glucose solution.

III. NON-CLINICAL ASPECTS

III.1 Discussion on the non-clinical aspects

Since this product has been shown to be essentially similar and refer to a product approved based on a full application with regard to preclinical data, no further such data have been submitted or are considered necessary.

IV. CLINICAL ASPECTS

IV.1 Pharmacokinetics

The applicant has not submitted a bioequivalence study which is acceptable. According to the EMEA guidance on Bioequivalence (CPMP/EWP/1401/98 Rev. 1), bioequivalence studies are not required if the product to be registered is to be administered as an aqueous solution containing the same active substance in the same concentration as the currently authorised product.

IV.2 Discussion on the clinical aspects

Since this product has been shown to be essentially similar and refer to a product approved based on a full application with regard to clinical efficacy/safety data, no further such data have been submitted or are considered necessary.

V. OVERALL CONCLUSION, BENEFIT/RISK ASSESSMENT AND RECOMMENDATION

User consultation
The package leaflet has been evaluated via a user consultation study in accordance with the requirements of Articles 59(3) and 61(1) of Directive 2001/83/EC. The language used for the purpose of user testing the package leaflet was Finnish.
The results show that the package leaflet meets the criteria for readability as set out in the Guideline on the readability of the label and package leaflet of medicinal products for human use.

The risk/benefit ratio is considered positive and Noradrenalin Abcur, 1 mg/ml concentrate for solution for infusion is recommended for approval.

VI. APPROVAL

Noradrenalin Abcur, 1 mg/ml concentrate for solution for infusion was approved in the national procedure 2009-07-03.

The Mutual recognition for Noradrenalin Abcur was successfully finalised 2012-05-21.

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Public Assessment Report – Update

Scope	Procedure number	Product Information affected	Date of start of the procedure	Date of end of procedure	Approval/ non approval	Assessment report attached
						Y/N (version)

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