**IPAR**

**Public Assessment Report for a**
**Medicinal Product for Human Use**

Scientific Discussion

Alendronic Acid Bluefish Once weekly 70 mg tablets
Sodium alendronate
PA1436/004/001

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

This is an abridged application to licence a generic form of a modified release form (given once a week rather than every day) of alendronic acid, a drug which is used to treat osteoporosis in post menopausal women.

## II. QUALITY ASPECTS

### II.1 Introduction

This application for Alendronic Acid Bluefish Once weekly 70mg Tablets is submitted in accordance with article 28(3) of Directive 2001/83/EC and a generic application in accordance with article 10(1). The drug product is formulated as oral tablets and is indicated for treatment of postmenopausal osteoporosis. The recommended dosage is one 70 mg tablet once weekly

### II.2 2.2 Drug Substance

The drug substance, alendronate sodium, is well established and it is described in the European Pharmacopoeia (Ph.Eur.), monograph 1564. The CEP procedure (Certificate of Suitability to the Monographs of the European Pharmacopoeia) is followed for the drug 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.

### II.3 Medicinal Product

II.3.1 Composition

Alendronate Bluefish is an oval and flat tablet, which dimensions are 14 x 8 mm and marked in one face with "70" containing 70 mg of Alendronic acid per tablet present as sodium alendronate. The excipients are Microcrystalline cellulose, Crospovidone and Magnesium sterate. The tablets are packaged in Al/Al blisters in the pack size of 2,4,12 or 40 tablets.

II.3.2 Pharmaceutical Development

The drug product is an oral tablet containing equivalent of 70 mg of alendronic acid as 91.37 mg sodium alendronate. The product development is adequately described in accordance with the relevant European guidelines. The product is an immediate release tablet and it is itended for oral administration.

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. The manufacturing process is considered adequately validated.

II.3.4 Control of Excipients

The excipients are well known pharmaceutical excipients and comply with their respective pharmacopoeial 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 Ph. Eur. monograph for Alendroane Sodium, the USP monograph for Alendronic Acid Tablets and the standard requirements associated with tablets for oral use. 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.3.6 Packaging Material

Tablets are packed in blisters composed by Hard aluminium sheet of 20 µm + thermoweldable lacquer (6 gr/$m^2$) to PVC or PVDC and Poliamide sheet of 25 µm + aluminium of 45 µm + PVC of 60 µm.

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. The product as package for sale does not require any special storage precautions prior to use.

**II.4 Discussion on chemical, pharmaceutical and biological aspects**

**III. NON-CLINICAL ASPECTS**

**III.1 Introduction**

N/A

**III.2 Pharmacology**

N/A

**III.3 Pharmacokinetics**

N/A

**III.4 Toxicology**

N/A

**III.5 Ecotoxicity/environmental risk assessment**

N/A

**III.6 Discussion on the non-clinical aspects**

This is a generic application and so it is not necessary to repeat animal studies.

**IV. CLINICAL ASPECTS**

**IV.1 Introduction**

This is stated to be an abridged application under section 10.l.a (iii) of European Directive 2001/83/EC. As appropriate the applicant has performed a bioequivalence study.

**IV.2 Pharmacokinetics**

The applicant has provided the results of a randomised, open label, crossover, single dose, two period study which was performed in healthy volunteers to evaluate the bioavailability/bioequivalence between the alendronate formulation in 70 mg tablets and the test formulation (Fosamax, Merck Sharp & Dohme).
The results suggest that the products are bioequivalent.

**IV.3 Pharmacodynamics**

N/A

**IV.4 Clinical efficacy**

N/A

**IV.5 Clinical safety**

N/A

**Pharmacovigilance System**
The RMS considers that the Pharmacovigilance system as described by the applicant fulfils the requirements and provides adequate evidence that the applicant has the services of a qualified person responsible for pharmacovigilance and has the necessary means for the notification of any adverse reaction suspected of occurring either in the Community or in a third country.

**Risk Management Plan**
A Risk Management Plan is not required at this time for the Innovator or for this generic product due to the fact that differences between the Innovator and this generic product have not been identified and a Risk Management Plan is not currently required for the Innovator product.

**IV.6 Discussion on the clinical aspects**

This is a generic application comparing the drug proposed for licensing with a drug already licensed and on the market. It is not necessary to repeat the studies demonstrating the safety and effectiveness of a generic drug if it can be shown that the new product and the product already on the market are similar. The applicant has performed a study in healthy volunteers and has shown that this drug is equivalent to the marketed comparator.

**V. OVERALL CONCLUSIONS**

The study provided has documented bioequivalence and from a clinical point of view this product could be licensed.

**VI. REVISION DATE**

**VII. UPDATES**

**This module reflects the procedural steps and scientific information after the finalisation of the initial procedure.**

Scope
Submission of a new or updated Ph. Eur. certificate of suitability

| | Product Information affected | Start of procedure | EOP | Approval/Non-Approval | |
|---|---|---|---|---|---|
| IE/H/188/001/IA/012 | | 14/03/2012 | 10/04/2012 | Approved | N |