

# **Public Assessment Report**

## **Scientific discussion**

### **Ziprasidon Pfizer**

#### **(ziprasidone hydrochloride monohydrate)**

**SE/H/1078/01-05/DC**

**This module reflects the scientific discussion for the approval of Ziprasidon Pfizer . The procedure was finalised at 2011-12-09. For information on changes after this date please refer to the module 'Update'.**

## **I. INTRODUCTION**

Pfizer AB has applied for a marketing authorisation for Ziprasidon Pfizer, capsule hard, 20mg, 40mg, 60 mg, 80 mg, and Ziprasidon Pfizer oral suspension 10 mg/ml claiming essential similarity to Zeldox, 20 mg, 40 mg, 60 mg 80 mg marketed in Sweden by Pfizer AB. The product contains ziprasidone hydrochloride monohydrate as active substance. For approved indications see the Summary of Product Characteristics.

## **II. QUALITY ASPECTS**

### **II.1 Introduction**

Ziprasidon Pfizer is presented in the form of capsules, hard and oral suspension containing Ziprasidone hydrochloride monohydrate corresponding 20 mg, 40 mg, 60 mg, and 80 mg capsules 10 mg/ml oral suspension. The excipients are of pharmacopeial grade. The capsules are packed in polyethylene (HDPE) bottles and aluminium blisters. The oral suspension is filled in high density polyethylene, opaque bottles

### **II.2 Drug Substance**

Ziprasidone has a monograph in the Ph Eur.

“Drug substance” is crystalline powder of uniform colour. The aqueous solubility of ziprasidone hydrochloride is pH dependent, showing a maximum aqueous solubility at pH 3.75 (25 °C) and a free base solubility of about 0.5 µg/mL.

The structure of ziprasidone has been adequately proven and its physico-chemical properties sufficiently described. Relevant information on polymorphism is presented. The route of synthesis has been adequately described and satisfactory specifications have been provided for starting materials, reagents and solvents.

The active substance specification includes relevant tests and the limits for impurities/degradation products have been justified. The analytical methods applied are suitably described and validated.

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

### **II.3 Medicinal Product**

Ziprasidon Pfizer 20 mg, 40 mg, 60 mg, and 80 mg capsules, hard and Ziprasidon Pfizer 10 mg/ml oral suspension is formulated using excipients described in the current Ph Eur, except the “Flavouring Agent” in oral suspension which is of food grade.

All raw materials used in the product comply with compendial specifications. The gelatin used in the capsule shells complies with the requirements of the Ph. Eur.

Acceptable quality control presented for the flavouring agent.

The product development has taken into consideration the physico-chemical characteristics of the active substance, such as aqueous solubility, hygroscopic properties, polymorphism and stability.

The manufacturing process has been sufficiently described and critical steps identified. 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.

Stability studies under ICH conditions have been performed and data presented support the shelf life claimed in the SPC, with no special storage precautions for “oral suspension”/when stored below 30 °C for Capsules.

### **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**

Ziprasidon Pfizer (20, 40, 60 and 80 mg hard capsules and 10 mg/ml oral suspension) and the reference products Zeldox are identical. The active pharmaceutical ingredient used, the manufacturing process and manufacturing site for the finished dosage form being the same. Bioequivalence studies have therefore not been provided in this application, which is acceptable.

#### **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

A user consultation with target patient groups on the package information leaflet (PIL) has been performed on the basis of a bridging report making reference to Zeldox oral suspension and Zeldox capsules, SE/H/160/06/R/02 and SE/H/160/01-04/R/02. The bridging report submitted by the applicant has been found acceptable.

The risk/benefit ratio is considered positive and Ziprasidon Pfizer, capsule hard, 20mg, 40mg, 60 mg, 80 mg, and Ziprasidon Pfizer oral suspension 10 mg/ml is recommended for approval.

## **VI. APPROVAL**

The Decentralised procedure for Ziprasidon Pfizer, capsule hard, 20mg, 40mg, 60 mg, 80 mg, and Ziprasidon Pfizer oral suspension 10 mg/ml was successfully finalised on 2011-12-09.

## Public Assessment Report – Update

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