

EMA/476084/2013

## European Medicines Agency decision

P/0191/2013

of 9 August 2013

on the acceptance of a modification of an agreed paediatric investigation plan for mirabegron (Betmiga) (EMA-000597-PIP02-10-M01) in accordance with Regulation (EC) No 1901/2006 of the European Parliament and of the Council

### **Disclaimer**

This Decision does not constitute entitlement to the rewards and incentives referred to in Title V of Regulation (EC) No 1901/2006.

**Only the English text is authentic.**

# European Medicines Agency decision

P/0191/2013

of 9 August 2013

on the acceptance of a modification of an agreed paediatric investigation plan for mirabegron (Betmiga), (EMA-000597-PIP02-10-M01) in accordance with Regulation (EC) No 1901/2006 of the European Parliament and of the Council

The European Medicines Agency,

Having regard to the Treaty on the Functioning of the European Union,

Having regard to Regulation (EC) No 1901/2006 of the European Parliament and of the Council of 12 December 2006 on medicinal products for paediatric use and amending Regulation (EEC) No. 1768/92, Directive 2001/20/EC, Directive 2001/83/EC and Regulation (EC) No 726/2004<sup>1</sup>,

Having regard to Regulation (EC) No 726/2004 of the European Parliament and of the Council of 31 March 2004 laying down Community procedures for the authorisation and supervision of medicinal products for human and veterinary use and establishing a European Medicines Agency<sup>2</sup>,

Having regard to the European Medicines Agency's decision P/172/2010 issued on 10 September 2010,

Having regard to the application submitted by Astellas Pharma Europe B.V. on 26 April 2013 under Article 22 of Regulation (EC) No 1901/2006 proposing changes to the agreed paediatric investigation plan with a deferral and a waiver,

Having regard to the opinion of the Paediatric Committee of the European Medicines Agency, issued on 19 July 2013, in accordance with Article 22 of Regulation (EC) No 1901/2006,

Having regard to Article 25 of Regulation (EC) No 1901/2006,

Whereas:

- (1) The Paediatric Committee of the European Medicines Agency has given an opinion on the acceptance of changes to the agreed paediatric investigation plan.
- (2) It is therefore appropriate to adopt a decision on the acceptance of changes to the agreed paediatric investigation plan.

---

<sup>1</sup> OJ L 378, 27.12.2006, p.1.

<sup>2</sup> OJ L 136, 30.4.2004, p. 1.

Has adopted this decision:

**Article 1**

Changes to the agreed paediatric investigation plan for mirabegron (Betmiga), prolonged-release granules for oral suspension, prolonged-release tablet, oral use, are hereby accepted in the scope set out in the opinion of the Paediatric Committee of the European Medicines Agency annexed hereto, together with its appendices.

**Article 2**

This decision is addressed to Astellas Pharma Europe B.V., Sylviusweg 62, 2333 BE Leiden, The Netherlands.

Done at London, 9 August 2013

For the European Medicines Agency  
Guido Rasi  
Executive Director  
(Signature on file)



EUROPEAN MEDICINES AGENCY  
SCIENCE MEDICINES HEALTH

EMA/PDCO/274230/2013

## Opinion of the Paediatric Committee on the acceptance of a modification of an agreed Paediatric Investigation Plan

EMA-000597-PIP02-10-M01

### Scope of the application

**Active substance(s):**

Mirabegron

**Invented name:**

Betmiga

**Condition(s):**

Treatment of idiopathic overactive bladder

Treatment of neurogenic detrusor overactivity

**Authorised indication(s):**

See Annex II

**Pharmaceutical form(s):**

Prolonged-release granules for oral suspension

Prolonged-release tablet

**Route(s) of administration:**

Oral use

**Name / corporate name of the PIP applicant:**

Astellas Pharma Europe B.V.

**Information about the authorised medicinal product:**

See Annex II



## Basis for opinion

Pursuant to Article 22 of Regulation (EC) No 1901/2006 as amended, Astellas Pharma Europe B.V. submitted to the European Medicines Agency on 26 April 2013 an application for modification of the agreed paediatric investigation plan with a deferral and a waiver as set out in the European Medicines Agency's decision P/172/2010 issued on 10 September 2010.

The application for modification proposed changes to the agreed paediatric investigation plan.

The procedure started on 22 May 2013.

## Scope of the modification

The wording of the pharmaceutical forms has been modified. Furthermore, the PDCO assessed the pharmaceutical development of the modified-release granules for oral suspension.

## Opinion

1. The Paediatric Committee, having assessed the application in accordance with Article 22 of Regulation (EC) No 1901/2006 as amended, recommends as set out in the appended summary report:
  - to agree to changes to the paediatric investigation plan in the scope set out in the Annex I of this opinion.

The Norwegian Paediatric Committee member agrees with the above-mentioned recommendation of the Paediatric Committee.

2. The measures and timelines of the paediatric investigation plan and the subset(s) of the paediatric population and condition(s) covered by the waiver are set out in the Annex I.

This opinion is forwarded to the applicant and the Executive Director of the European Medicines Agency, together with its annexes and appendix.

London, 19 July 2013

On behalf of the Paediatric Committee  
Dr Daniel Brasseur, Chairman  
(Signature on file)

## **Annex I**

**The subset(s) of the paediatric population and condition(s) covered by the waiver and the measures and timelines of the agreed Paediatric Investigation Plan**

## **1. Waiver**

### ***1.1. Condition: Treatment of idiopathic overactive bladder***

The waiver applies to:

- The paediatric population from birth to less than 5 years of age,
- for prolonged-release granules for oral suspension, oral use,
- on the grounds that the specific medicinal product does not represent a significant therapeutic benefit over existing treatments.

The waiver applies to:

- The paediatric population from birth to less than 6 years of age,
- for prolonged-release tablet, oral use,
- on the grounds that the specific medicinal product does not represent a significant therapeutic benefit over existing treatments.

### ***1.2. Condition: Treatment of neurogenic detrusor overactivity***

The waiver applies to:

- The paediatric population from birth to less than 6 months of age,
- for prolonged-release granules for oral suspension, oral use,
- on the grounds that the specific medicinal product does not represent a significant therapeutic benefit over existing treatments.

The waiver applies to:

- The paediatric population from birth to less than 6 years of age,
- for prolonged-release tablet, oral use,
- on the grounds that the specific medicinal product does not represent a significant therapeutic benefit over existing treatments.

## **2. Paediatric Investigation Plan**

### ***2.1. Condition: Treatment of idiopathic overactive bladder***

#### **2.1.1. Indication(s) targeted by the PIP**

Symptomatic treatment of urge incontinence and/or increased urinary frequency and urgency as may occur in patients with overactive bladder syndrome

#### **2.1.2. Subset(s) of the paediatric population concerned by the paediatric development**

From 5 years to less than 18 years of age.

### 2.1.3. Pharmaceutical form(s)

Prolonged-release granules for oral suspension.

Prolonged-release tablet.

### 2.1.4. Measures

| Area         | Number of measures | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|--------------|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Quality      | 2                  | <i>Measure 1</i><br>Development of an oral age-appropriate prolonged-release microgranula-based suspension with a compatible delivery device.<br><i>Measure 2</i><br>Development of a prolonged-release tablet.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Non-clinical | 2                  | <i>Measure 3</i><br>14 day repeated dose feasibility and dose range finding study in juvenile rats.<br><i>Measure 4</i><br>13 week repeated dose toxicity and toxicokinetics study in juvenile rats.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Clinical     | 6                  | <i>Measure 5</i><br>Open label, randomised, formulation taste and pharmacokinetics study to evaluate the taste and pharmacokinetics of different mirabegron prolonged-release microgranula-based suspensions in healthy young adults from 18 to less than 26 years of age combined with open label, single dose study to evaluate the taste of prototype oral prolonged-release liquid placebo formulation(s) in children from 6 months to less than 18 years of age.<br><i>Measure 6</i><br>Open label, randomised bioavailability and food effect study to compare relative bioavailability of the liquid formulation and tablet in healthy young adults from 18 to less than 26 years of age.<br><i>Measure 7</i><br>Open label, multicentre single ascending dose study to evaluate pharmacokinetics, safety and tolerability of mirabegron prolonged-release microgranula-based suspension in children from 5 to less than 18 years of age with overactive bladder.<br><i>Measure 8 (Extension of Measure 7)</i><br>Open label extension of multicentre single ascending dose study with mirabegron prolonged-release microgranula-based suspension in |

| Area | Number of measures | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|------|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|      |                    | <p>children from 5 to less than 18 years of age with overactive bladder.</p> <p><i>Measure 9</i></p> <p>Double blind, randomised, multicentre, parallel group, placebo and active controlled (oxybutynin) sequential dose titration study to evaluate pharmacokinetics, safety and efficacy of mirabegron prolonged-release microgranula-based suspension in children from 5 to less than 18 years of age with overactive bladder.</p> <p><i>Measure 10 (Extension of Measure 9)</i></p> <p>Open label long-term safety study to evaluate safety and efficacy of mirabegron prolonged-release microgranula-based suspension in children from 5 to less than 18 years of age with overactive bladder.</p> |

## **2.2. Condition: Treatment of neurogenic detrusor overactivity**

### **2.2.1. Indication(s) targeted by the PIP**

Treatment of detrusor overactivity in children with neurogenic bladder dysfunction.

### **2.2.2. Subset(s) of the paediatric population concerned by the paediatric development**

From 6 months to less than 18 years of age.

### **2.2.3. Pharmaceutical form(s)**

Prolonged-release granules for oral suspension Prolonged-release tablet.

### **2.2.4. Measures**

| Area         | Number of measures | Description                                                                                                                                                                                                                                                                                                                                                          |
|--------------|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Quality      | 2                  | <p><i>Measure 1 (Same measure as for treatment of idiopathic overactive bladder)</i></p> <p>Development of an oral age-appropriate prolonged-release microgranula-based suspension with a compatible delivery device.</p> <p><i>Measure 2 (Same measure as for treatment of idiopathic overactive bladder)</i></p> <p>Development of a prolonged-release tablet.</p> |
| Non-clinical | 2                  | <p><i>Measure 3 (Same measure as for treatment of idiopathic overactive bladder)</i></p>                                                                                                                                                                                                                                                                             |

| Area     | Number of measures | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|----------|--------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|          |                    | <p>14 day repeated dose feasibility and dose range finding study in juvenile rats.</p> <p><i>Measure 4 (Same measure as for treatment of idiopathic overactive bladder)</i></p> <p>13 week repeated dose toxicity and toxicokinetics study in juvenile rats.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Clinical | 4                  | <p><i>Measure 5 (Same measure as for treatment of idiopathic overactive bladder)</i></p> <p>Open label, randomised, formulation taste and pharmacokinetics study to evaluate the taste and pharmacokinetics of different mirabegron oral prolonged-release microgranula-based suspensions in healthy young adults from 18 to less than 26 years of age combined with open label, single dose study to evaluate the taste of prototype oral prolonged-release liquid placebo formulation(s) in children from 6 months to less than 18 years of age.</p> <p><i>Measure 6 (Same measure as for treatment of idiopathic overactive bladder)</i></p> <p>Open label, randomised bioavailability and food effect study to compare relative bioavailability of the liquid formulation and tablet in healthy young adults from 18 to less than 26 years of age.</p> <p><i>Measure 11</i></p> <p>Double blind, randomised, multicentre, active controlled (oxybutynin) sequential dose titration study followed by a fixed dose observation period to evaluate pharmacokinetics, efficacy and safety of mirabegron prolonged-release microgranula-based suspension in children from 5 to less than 18 years of age with neurogenic detrusor overactivity.</p> <p><i>Measure 12</i></p> <p>Open label, multicentre, baseline-controlled sequential dose titration study followed by a fixed dose observation period to evaluate pharmacokinetics, efficacy and safety of mirabegron prolonged-release microgranula-based suspension in children from 6 months to less than 5 years of age with neurogenic detrusor overactivity.</p> |

### 3. Follow-up, completion and deferral of PIP

|                                                                                           |               |
|-------------------------------------------------------------------------------------------|---------------|
| Concerns on potential long term safety and efficacy issues in relation to paediatric use: | No            |
| Date of completion of the paediatric investigation plan:                                  | By March 2024 |
| Deferral for one or more measures contained in the paediatric investigation plan:         | Yes           |

## **Annex II**

### **Information about the authorised medicinal product**

**Condition(s) and authorised indication(s):**

Treatment of idiopathic overactive bladder

Authorised indication(s):

- Symptomatic treatment of urgency, increased micturition frequency and/or urgency incontinence as may occur in adult patients with overactive bladder (OAB) syndrome.

**Authorised pharmaceutical form(s):**

Prolonged-release tablets

**Authorised route(s) of administration:**

Oral use