SUMMARY OF PRODUCT CHARACTERISTICS, LABELLING AND PACKAGE LEAFLET

Version: September 04, 2013
SUMMARY OF PRODUCT CHARACTERISTICS

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This medicinal product is subject to additional monitoring. This will allow quick identification of new safety information. Healthcare professionals are asked to report any suspected adverse reactions. See section 4.8 for how to report adverse reactions.

1. **NAME OF THE MEDICINAL PRODUCT**

Striverdi Respimat 2.5 microgram, solution for inhalation

2. **QUALITATIVE AND QUANTITATIVE COMPOSITION**

The delivered dose is 2.5 microgram Olodaterol (as hydrochloride) per puff. The delivered dose is the dose which is available for the patient after passing the mouthpiece.

For the full list of excipients, see section 6.1.

3. **PHARMACEUTICAL FORM**

Solution for inhalation
Clear, colourless, solution for inhalation

4. **CLINICAL PARTICULARS**

4.1 Therapeutic indications

Striverdi Respimat is indicated as a maintenance bronchodilator treatment in patients with chronic obstructive pulmonary disease (COPD).

4.2 Posology and method of administration

**Posology**
The medicinal product is intended for inhalation use only. The cartridge can only be inserted and used in the Respimat inhaler.
Two puffs from the Respimat inhaler comprise one medicinal dose.

**Adults**
The recommended dose is 5 microgram olodaterol given as two puffs from the Respimat inhaler once daily, at the same time of the day.

The recommended dose should not be exceeded.

**Elderly population**
Elderly patients can use Striverdi Respimat at the recommended dose.

**Hepatic impairment**
Patients with mild and moderate hepatic impairment can use Striverdi Respimat at the recommended dose.

There are no data available for use of Striverdi Respimat in patients with severe hepatic impairment.

**Renal impairment**
Renally impaired patients can use Striverdi Respimat at the recommended dose. There is limited experience with the use of Striverdi Respimat in patients with severe renal impairment.

**Paediatric population**
There is no relevant use of Striverdi Respimat in the paediatric population (under 18 years).

**Method of administration**
To ensure proper administration of the medicinal product, the patient should be shown how to use the inhaler by a physician or other health professional.
**Patient’s instructions for use and handling**

Striverdi Respimat inhaler and the Striverdi Respimat cartridge

1) **Inserting the cartridge**

The following steps 1-6 are necessary before first use:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>With the yellow cap (A) closed, press the safety catch (E) while pulling off the clear base (G).</td>
</tr>
<tr>
<td>2a</td>
<td>Take the cartridge (H) out of the box. Push the <strong>narrow</strong> end of the cartridge into the inhaler until it <strong>clicks</strong> into place. The cartridge should be pushed <strong>firmly</strong> against a firm surface to ensure that it has gone all the way in (2b). The cartridge will not be flush with the inhaler, you will still see the silver ring of the lower end of the cartridge. Do not remove the cartridge once it has been inserted into the inhaler.</td>
</tr>
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</tr>
</tbody>
</table>
| 3 | Replace the clear base (G).  
    Do not remove the clear base again. |   |
| 4 | Hold the Striverdi Respimat inhaler upright, with the yellow cap (A) closed. Turn the base (G) in the direction of the black arrows on the label until it **clicks** (half a turn). |   |
| 5 | Open the yellow cap (A) until it snaps fully open. |   |
| 6 | Point the Striverdi Respimat inhaler towards the ground. Press the dose release button (D). Close the yellow cap (A).  
**Repeat steps 4, 5 and 6 until a cloud is visible.**  
**Then repeat steps 4, 5 and 6 three more times to ensure the inhaler is prepared for use.**  
**Your Striverdi Respimat inhaler is now ready to use.**  
These steps will not affect the number of doses available. After preparation your Striverdi Respimat inhaler will be able to deliver your 60 puffs (30 medicinal doses). |   |
Daily use of your Striverdi Respimat inhaler

You will need to use this inhaler ONLY ONCE A DAY. Each time you use it take TWO PUFFS.

I  Hold the Striverdi Respimat inhaler upright, with the yellow cap (A) closed, to avoid accidental release of dose. Turn the base (G) in the direction of the black arrows on the label until it clicks (half a turn).

II  Open the yellow cap (A) until it snaps fully open. Breathe out slowly and fully, and then close your lips around the end of the mouthpiece without covering the air vents (C). Point your Striverdi Respimat inhaler to the back of your throat.

While taking in a slow, deep breath through your mouth, press the dose release button (D) and continue to breathe in slowly for as long as you can. Hold your breath for 10 seconds or for as long as comfortable.

III  Repeat steps I and II so that you get the full dose.

You will need to use this inhaler only ONCE A DAY.

Close the yellow cap until you use your Striverdi Respimat inhaler again.

If Striverdi Respimat inhaler has not been used for more than 7 days release one puff towards the ground. If Striverdi Respimat inhaler has not been used for more than 21 days repeat steps 4 to 6 until a cloud is visible. Then repeat steps 4 to 6 three more times.
When to get a new Striverdi Respimat inhaler

The Striverdi Respimat inhaler contains 60 puffs (30 medicinal doses). The dose indicator shows approximately how much medication is left. When the pointer enters the red area of the scale, there is, approximately, medication for 7 days left (14 puffs). This is when you need to get a new Striverdi Respimat inhaler prescription.

Once the dose indicator has reached the end of the red scale (i.e. all 30 doses have been used), the Striverdi Respimat inhaler is empty and locks automatically. At this point, the base cannot be turned any further.

At the latest, three months after use the Striverdi Respimat inhaler should be discarded even if not all medication has been used.

How to care for your inhaler

Clean the mouthpiece including the metal part inside the mouthpiece with a damp cloth or tissue only, at least once a week.

Any minor discoloration in the mouthpiece does not affect the performance of your Striverdi Respimat inhaler.

If necessary, wipe the outside of your Striverdi Respimat inhaler with a damp cloth.

4.3 Contraindications

Striverdi Respimat is contraindicated in patients with hypersensitivity to olodaterol or to any of the excipients listed in section 6.1.

4.4 Special warnings and precautions for use

Asthma
Striverdi Respimat should not be used in asthma. The long-term efficacy and safety of olodaterol in asthma have not been studied.

Acute bronchospasm
Striverdi Respimat, as a once daily maintenance bronchodilator should not be used for the treatment of acute episodes of bronchospasm, i.e. as rescue therapy.

Hypersensitivity
As with all medications, immediate hypersensitivity reactions may occur after administration of Striverdi Respimat.

Paradoxical bronchospasm
As with other inhaled medicines Striverdi Respimat may result in paradoxical bronchospasm that may be life-threatening. If paradoxical bronchospasm occurs Striverdi Respimat should be discontinued immediately and alternative therapy substituted.
Systemic effects
Long acting beta2-adrenergic agonists should be administered with caution in patients with cardiovascular disorders, especially ischaemic heart disease, severe cardiac decompensation, cardiac arrhythmias, hypertrophic obstructive cardiomyopathy, hypertension, and aneurysm, in patients with convulsive disorders or thyrotoxicosis, in patients with known or suspected prolongation of the QT interval (e.g. QT> 0.44 s), and in patients who are unusually responsive to sympathomimetic amines.

Patients with a history of myocardial infarction during the previous year, unstable or life-threatening cardiac arrhythmia, hospitalized for heart failure during the previous year or with a diagnosis of paroxysmal tachycardia (>100 beats per minute) were excluded from the clinical trials. Therefore the experience in these patient groups is limited. Striverdi Respimat should be used with caution in these patient groups.

Cardiovascular effects
Like other beta2-adrenergic agonists, olodaterol may produce a clinically significant cardiovascular effect in some patients as measured by increases in pulse rate, blood pressure, and/or symptoms. In case such effects occur, treatment may need to be discontinued. In addition, beta-adrenergic agonists have been reported to produce electrocardiogram (ECG) changes, such as flattening of the T wave and ST segment depression, although the clinical significance of these observations is unknown.

Hypokalaemia
Beta2-adrenergic agonists may produce significant hypokalaemia in some patients, which has the potential to produce adverse cardiovascular effects. The decrease in serum potassium is usually transient, not requiring supplementation. In patients with severe COPD, hypokalaemia may be potentiated by hypoxia and concomitant treatment (see section 4.5), which may increase the susceptibility to cardiac arrhythmias.

Hyperglycaemia
Inhalation of high doses of beta2-adrenergic agonists may produce increases in plasma glucose.

Anaesthesia
Caution needs to be taken in case of a planned operation with halogenated hydrocarbon anaesthetics due to an increased susceptibility to the adverse cardiac effects of beta agonist bronchodilators.

Striverdi Respimat should not be used in conjunction with any other medications containing long-acting beta2-adrenergic agonists.
Patients who have been taking inhaled, short-acting beta2-adrenergic agonists on a regular basis (e.g., four times a day) should be instructed to use them only for symptomatic relief of acute respiratory symptoms.

4.5 Interaction with other medicinal products and other forms of interaction

Adrenergic agents
Concomitant administration of other adrenergic agents (alone or as part of combination therapy) may potentiate the undesirable effects of Striverdi Respimat.

Xanthine derivatives, Steroids or diuretics
Concomitant treatment with xanthine derivatives, steroids, or non-potassium sparing diuretics may potentiate any hypokalemic effect of adrenergic agonists (see section 4.4).
Beta-blockers
Beta-adrenergic blockers may weaken or antagonise the effect of Striverdi Respimat. Therefore Striverdi Respimat should only be given together with beta-adrenergic blockers (including eye-drops) if there are compelling reasons for their use. In this setting, cardioselective beta-blockers could be considered, although they should be administered with caution.

MAO inhibitors and tricyclic antidepressants, QTc Prolonging drugs
Monamine oxidase inhibitors or tricyclic antidepressants or other drugs known to prolong the QTc interval may potentiate the action of Striverdi Respimat on the cardiovascular system.

Pharmacokinetic Drug Drug interactions
No relevant effect on systemic exposure to olodaterol has been observed in drug-drug interaction studies with co-administration of fluconazole, used as model inhibitor of CYP2C9.

Co-administration of ketoconazole as potent P-gp and CYP inhibitor increased systemic exposure to olodaterol by approximately 70%. No dose adjustment is necessary.

Co-administration of olodaterol and tiotropium had no relevant effect on the systemic exposure to either of the two drugs.

In vitro investigations have shown that olodaterol does not inhibit CYP enzymes or drug transporters at the plasma concentrations achieved in clinical practice.

4.6 Fertility, pregnancy and lactation

Pregnancy
There are no data from the use of Striverdi Respimat in pregnant women available. Animal studies do not indicate direct or indirect harmful effects with respect to reproductive toxicity at clinically relevant exposures (see section 5.3).
As a precautionary measure, it is preferable to avoid the use of Striverdi Respimat during pregnancy.

Like other beta2-adrenergic agonists, olodaterol may inhibit labour due to a relaxant effect on uterine smooth muscle.

Breast-feeding
Clinical data from nursing women exposed to olodaterol are not available. It is unknown whether olodaterol/metabolites are excreted in human milk. Available pharmacokinetic/toxicological data in animals have shown excretion of olodaterol and/or its metabolites in milk.

Since the systemic exposure of the breast-feeding woman to olodaterol/metabolites is negligible at the human dose of 5 µg per day, relevant effects on the breastfed newborn/infant are not expected.

A decision must be made whether to discontinue breast-feeding or to discontinue/abstain from Striverdi Respimat therapy, taking into account the benefit of breast-feeding for the child and the benefit of therapy for the woman.

Fertility
Clinical data on fertility are not available for Striverdi Respimat. Preclinical studies performed with olodaterol showed no adverse effect on fertility.
4.7 Effects on ability to drive and use machines

No studies on the effects on the ability to drive and use machines have been performed.

However, patients should be advised that dizziness has been reported in clinical trials. Therefore, caution should be recommended when driving a car or operating machinery. If patients experience dizziness, they should avoid potentially hazardous tasks such as driving or operating machinery.

4.8 Undesirable effects

a. Summary of the safety profile

The most common adverse reactions at the recommended dose were nasopharyngitis, dizziness, hypertension, rash and arthralgia. These were usually mild or moderate in intensity.

b. Tabulated summary of adverse reactions

The frequencies assigned to the undesirable effects listed below are based on the crude incidence rates of adverse drug reactions (i.e. events attributed to olodaterol) observed in the olodaterol 5 microgram dose group (1035 patients), pooled from 6 placebo-controlled, parallel group clinical trials in COPD patients with treatment periods ranging between 4 and 48 weeks.

Frequency is defined using the following convention:

Very common (≥1/10); common (≥1/100 to <1/10); uncommon (≥1/1,000 to <1/100); rare (≥1/10,000 to <1/1,000); very rare (<1/10,000), not known (cannot be estimated from the available data).

<table>
<thead>
<tr>
<th>System Organ Class / MedDRA Preferred Term</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infections and infestations</td>
<td></td>
</tr>
<tr>
<td>Nasopharyngitis</td>
<td>Uncommon</td>
</tr>
<tr>
<td>Nervous system disorders</td>
<td></td>
</tr>
<tr>
<td>Dizziness</td>
<td>Uncommon</td>
</tr>
<tr>
<td>Vascular disorders</td>
<td></td>
</tr>
<tr>
<td>Hypertension</td>
<td>Rare</td>
</tr>
<tr>
<td>Skin and subcutaneous tissue disorders</td>
<td></td>
</tr>
<tr>
<td>Rash</td>
<td>Uncommon</td>
</tr>
<tr>
<td>Musculoskeletal and connective tissue disorders</td>
<td></td>
</tr>
<tr>
<td>Arthralgia</td>
<td>Rare</td>
</tr>
</tbody>
</table>
c. Description of selected adverse reactions
Occurrence of rash may be considered a hypersensitivity reaction with Striverdi Respimat; as with all topical absorbed medication, other hypersensitivity reactions may develop.

d. Beta2-agonist adverse reaction profile
Striverdi Respimat is a member of the therapeutic class of long-acting beta2-adrenergic agonists. Therefore, the occurrence of undesirable effects related to the beta-adrenergic agonist class should be taken into consideration, such as tachycardia, arrhythmia, palpitations, myocardial ischaemia, angina pectoris, hypertension or hypotension, tremor, headache, nervousness, insomnia, dizziness, dry mouth, nausea, muscle spasms, fatigue, malaise, hypokalemia, hyperglycemia, and metabolic acidosis.

Reporting of suspected adverse reactions
Reporting suspected adverse reactions after authorisation of the medicinal product is important. It allows continued monitoring of the benefit/risk balance of the medicinal product. Healthcare professionals are asked to report any suspected adverse reactions via the national reporting system listed in Appendix V.

4.9 Overdose

Symptoms
An overdose of olodaterol is likely to lead to exaggerated effects typical of beta2-adrenergic agonists, e.g. myocardial ischaemia, hypertension or hypotension, tachycardia, arrhythmias, palpitation, dizziness, nervousness, insomnia, anxiety, headache, tremor, dry mouth, muscle spasms, nausea, fatigue, malaise, hypokalemia, hyperglycemia, and metabolic acidosis.

Treatment of overdose
Treatment with Striverdi Respimat should be discontinued. Supportive and symptomatic treatment is indicated. Serious cases should be hospitalised. Use of cardioselective beta-blockers may be considered, but only subject to extreme caution since the use of beta-adrenergic blocker medication may provoke bronchospasm.

5. PHARMACOLOGICAL PROPERTIES

5.1 Pharmacodynamic properties

Pharmacotherapeutic group: Drugs for obstructive airway diseases; Selective beta2-adrenoreceptor agonists, ATC code: R03AC19

Mechanism of action
Olodaterol has a high affinity and high selectivity to the human beta2-adrenoceptor. In vitro studies have shown that olodaterol has 241-fold greater agonist activity at beta2-adrenoceptors compared to beta1-adrenoceptors and 2299-fold greater agonist activity compared to beta3-adrenoceptors.
The compound exerts its pharmacological effects by binding and activation of beta2-adrenoceptors after topical administration by inhalation.
Activation of these receptors in the airways results in a stimulation of intracellular adenyl cyclase, an enzyme that mediates the synthesis of cyclic-3',5' adenosine monophosphate (cAMP). Elevated levels of cAMP induce bronchodilation by relaxation of airway smooth muscle cells.

Olodaterol has the pre-clinical profile of a long-acting selective beta2-adrenoceptor agonist (LABA) with a fast onset of action and a duration of action of at least 24 hours.

Beta-adrenoceptors are divided into three subtypes, beta1-adrenoceptors predominantly expressed on cardiac smooth muscle, beta2-adrenoceptors predominantly expressed on airway smooth muscle and beta3-adrenoceptors predominantly expressed on adipose tissue. Beta2-agonists cause bronchodilation. Although the beta2-adrenoceptor is the predominant adrenergic receptor in the airway smooth muscle it is also present on the surface of a variety of other cells, including lung epithelial and endothelial cells and in the heart. The precise function of beta2-receptors in the heart is not known, but their presence raises the possibility that even highly selective beta2-adrenergic agonists may have cardiac effects.

**Effects on cardiac electrophysiology**

The effect of olodaterol on the QT/QTc interval of the ECG was investigated in 24 healthy male and female volunteers in a double-blind, randomised, placebo- and active (moxifloxacin) controlled study. Olodaterol at single doses of 10, 20, 30 and 50 microgram, demonstrated that compared with placebo, the mean changes from baseline in QT interval over 20 minutes to 2 hours after dosing increased dose-dependently from 1.6 (10 microgram olodaterol) to 6.5 ms (50 microgram olodaterol), with the upper limit of the two-sided 90% confidence intervals being less than 10 ms at all dose levels for individually corrected QT (QTcI).

The effect of 5 microgram and 10 microgram Striverdi Respimat on heart rate and rhythm was assessed using continuous 24-hour ECG recording (Holter monitoring) in a subset of 772 patients in the 48-week, placebo-controlled Phase 3 trials. There were no dose- or time-related trends or patterns observed for the magnitudes of mean changes in heart rate or premature beats. Shifts from baseline to the end of treatment in premature beats did not indicate meaningful differences between olodaterol 5 microgram, 10 microgram and placebo.

**Clinical efficacy and safety**

The Phase III clinical development program for Striverdi Respimat included four pairs of replicate, randomised, double-blind, placebo-controlled trials in 3533 COPD patients (1281 received the 5 microgram dose, 1284 received the 10 microgram dose):

(i) two replicate, placebo- and active-controlled, parallel-group, 48-week trials, with formoterol 12 microgram twice daily as active comparator [Trials 1 and 2]
(ii) two replicate, placebo-controlled, parallel group, 48-week trials [Trials 3 and 4]
(iii) two replicate, placebo- and active-controlled, 6 week cross-over trials, with formoterol 12 microgram twice daily as active comparator [Trials 5 and 6]
(iv) two replicate, placebo- and active-controlled, 6 week cross-over trials, with tiotropium HandiHaler 18 microgram once daily as active comparator [Trials 7 and 8].

All studies included lung function measurements (forced expiratory volume in one second, FEV1); the 48 weeks studies evaluated peak (AUC0-3) and trough lung function responses, while the 6 week studies evaluated the lung function profile over a continuous 24 hour dosing interval. The two replicate, placebo- and active-controlled, 48 week trials also included the Transition Dyspnea Index (TDI) as a measure of dyspnea and the St. George’s Respiratory Questionnaire (SGRQ) as a measure of health-related quality of life.

Patients enrolled into the Phase III program were 40 years of age or older with a clinical diagnosis of COPD, had a smoking history of at least 10 pack years and had moderate to very severe pulmonary
impairment (post-bronchodilator FEV$_1$ less than 80% predicted normal (GOLD Stage II-IV); post-
bronchodilator FEV$_1$ to FVC ratio of less than 70%).

**Patient characteristics**

The majority of the 3104 patients recruited in the global, 48-week trials [Trials 1 and 2, Trials 3 and 4] were male (77%), white (66%) or Asian (32%), with a mean age of 64 years. Mean post-ronchodilator FEV$_1$ was 1.38 L (GOLD II [50%], GOLD III [40%), GOLD IV [10%]). Mean β$_2$-
agonist responsiveness was 15% of baseline (0.160 L). With the exception of other long acting β$_2$-
agonists, all pulmonary medications were allowed as concomitant therapy (e.g. tiotropium [24%],
ipratropium [25%], inhaled steroids [45%], xanthines [16%]); patient enrolment was stratified by
tiotropium use. In all four trials, the primary lung function efficacy endpoints were change from pre-
treatment baseline in FEV$_1$ AUC$_{0-3}$ and change from pre-treatment baseline in trough (pre-dose) FEV$_1$
(after 24 weeks in Trials 1 and 2; after 12 weeks in Trials 3 and 4).

The 6 week trials [Trials 5 and 6, Trials 7 and 8] were conducted in Europe and North America. In
Trials 5 and 6, the majority of the 199 recruited patients were male (53%) and white (93%), with a
mean age of 63 years. Mean post-bronchodilator FEV$_1$ was 1.43 L (GOLD II [54%], GOLD III
[39%], GOLD IV [7%]). Mean β$_2$-agonist responsiveness was 17% of baseline (0.187 L). With the
exception of other long acting β$_2$-agonists, all pulmonary medications were allowed as concomitant
therapy (e.g. tiotropium [24%], ipratropium [16%], inhaled steroids [31%], xanthines [0.5%]). In
Trials 7 and 8, the majority of the 230 recruited patients were male (69%) and white (99.6%), with a
mean age of 62 years. Mean post-bronchodilator FEV$_1$ was 1.55 L (GOLD II [57%], GOLD III
[35%], GOLD IV [7%]). Mean β$_2$-agonist responsiveness was 18% of baseline (0.203 L). With the
exception of other long acting β$_2$-agonists and anti-cholinergics, all pulmonary medications were
allowed as concomitant therapy (e.g. inhaled steroids [49%], xanthines [7%]).

**Lung function**

In the 48 week trials, Striverdi Respimat, 5 microgram administered once daily in the morning,
provided significant improvement (p<0.0001) in lung function within 5 minutes following the first
dose (mean 0.130 L increase in FEV$_1$ compared with a pre-treatment baseline of 1.18 L). Significant
improvement in lung function was maintained for 24 hours (mean 0.162 L increase in FEV$_1$ AUC$_{0-3}$
compared to placebo, p<0.0001; mean 0.071 L increase in 24 hour trough FEV$_1$ compared to placebo,
p<0.0001); the lung function improvements were evident in both tiotropium users and non-tiotropium
users. The magnitude of the bronchodilating effect of olodaterol (FEV$_1$ AUC$_{0-3}$ response) was
dependent on the degree of reversibility of airflow limitation at baseline (tested by administration of a
short-acting beta-agonist bronchodilator); patients with a higher degree of reversibility at baseline
generally exhibited a higher bronchodilator response with olodaterol than patients with a lower degree
of reversibility at baseline. For both olodaterol and active comparator, the bronchodilatory effect
(when measured in L) was lower in patients with more severe COPD. The bronchodilator effects of
Striverdi Respimat were maintained throughout the 48 week treatment period. Striverdi Respimat also
improved morning and evening PEFR (peak expiratory flow rate) as measured by patient's daily
recordings compared to placebo.

In the 6 week trials, Striverdi Respimat showed a significantly greater FEV$_1$ response compared to
placebo (p<0.0001) over the full 24 hour dosing interval (mean 0.175 L [Trials 5 and 6] and 0.211 L
[Trials 7 and 8] increase in FEV$_1$ AUC$_{0-3}$ compared to placebo, p<0.0001; mean 0.137 L [Trials 5 and
6] and 0.168 L [Trials 7 and 8] increase in FEV$_1$ AUC$_{0-24}$ compared to placebo, p<0.0001). mean
0.102 L [Trials 5 and 6] and 0.134 L [Trials 7 and 8] increase in 24 hour trough FEV$_1$ compared to
placebo, p<0.0001). Improvements in lung function were comparable to twice daily formoterol [Trials
5 and 6; mean 0.205 L increase in FEV$_1$ AUC$_{0-3}$ compared to placebo; mean 0.108 L increase in 24
hour trough FEV$_1$ compared to placebo (p<0.0001)] and once daily tiotropium HandHaler [Trials 7
and 8; mean 0.211 L increase in FEV$_1$ AUC$_{0-3}$ compared to placebo; mean 0.129 L increase in 24
hour trough FEV$_1$ compared to placebo (p<0.0001)].
**Dyspnea, Health-related Quality of Life, Rescue Medication Use, Patient Global Rating**

The Transition Dyspnea Index (TDI) and the St. George’s Respiratory Questionnaire (SGRQ) were also included in the replicate, placebo- and active-controlled, 48-week trials [Trials 1 and 2].

After 24 weeks, there was no significant difference between Striverdi Respimat, formoterol and placebo in the TDI focal score, due to an unexpected improvement in the placebo group in one study (Table 1); in a post-hoc analysis that accounted for patient discontinuations, the difference between Striverdi Respimat and placebo was significant.

<table>
<thead>
<tr>
<th>Table 1</th>
<th>TDI focal score after 24 weeks of treatment</th>
<th>Treatment Mean</th>
<th>Difference to Placebo Mean (p-value)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Primary analysis</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Placebo</td>
<td>1.5 (0.2)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Olodaterol 5 μg once daily</td>
<td>1.9 (0.2)</td>
<td>0.3 (p=0.1704)</td>
<td></td>
</tr>
<tr>
<td>Formoterol 12 μg twice daily</td>
<td>1.8 (0.2)</td>
<td>0.2 (p=0.3718)</td>
<td></td>
</tr>
<tr>
<td><strong>Post-hoc analysis</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Placebo</td>
<td>1.5 (0.2)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Olodaterol 5 μg once daily</td>
<td>2.0 (0.2)</td>
<td>0.5 (p=0.0270)</td>
<td></td>
</tr>
<tr>
<td>Formoterol 12 μg twice daily</td>
<td>1.8 (0.2)</td>
<td>0.4 (p=0.1166)</td>
<td></td>
</tr>
</tbody>
</table>

After 24 weeks, Striverdi Respimat significantly improved mean SGRQ total score compared to placebo (Table 2); improvements were seen in all 3 SGRQ domains (symptoms, activities, impact). More patients treated with Striverdi Respimat had an improvement in SGRQ total score greater than the MCID (4 units) compared to placebo (50.2% vs. 36.4%, p<0.0001).

<table>
<thead>
<tr>
<th>Table 2</th>
<th>SGRQ total-scores after 24 weeks of treatment</th>
<th>Treatment Mean (change from baseline)</th>
<th>Difference to Placebo Mean (p-value)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total score</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Baseline</td>
<td>44.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Placebo</td>
<td>41.6 (-2.8)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Olodaterol 5 μg once daily</td>
<td>38.8 (-5.6)</td>
<td>-2.8 (p=0.0034)</td>
<td></td>
</tr>
<tr>
<td>Formoterol 12 μg twice daily</td>
<td>40.4 (-4.0)</td>
<td>-1.2 (p=0.2009)</td>
<td></td>
</tr>
</tbody>
</table>

Patients treated with Striverdi Respimat used less daytime and nighttime rescue salbutamol compared to patients treated with placebo.

In each of the 48 week trials, patients treated with Striverdi Respimat perceived a greater improvement in their respiratory condition compared to placebo, as measured by a Patient’s Global Rating (PGR) scale.

**Paediatric population**
The European Medicines Agency has waived the obligation to submit the results of studies with Striverdi Respimat in all subsets of the paediatric population in chronic obstructive pulmonary disease (COPD) (see section 4.2 for information on paediatric use).
5.2 Pharmacokinetic properties

a. General Introduction

Information on the pharmacokinetics of olodaterol has been obtained from healthy subjects, COPD and asthma patients following oral inhalation of doses at and above the therapeutic dose.

Olodaterol showed linear pharmacokinetics with a dose-proportional increase of systemic exposure after single inhaled doses of 5 to 70 microgram and multiple once daily inhaled doses of 2 to 20 microgram.

On repeated once daily inhalation steady-state of olodaterol plasma concentrations was achieved after 8 days, and the extent of exposure was increased up to 1.8-fold as compared to a single dose.

b. General Characteristics of the Active Substance after Administration of the Medicinal Product

Absorption

Olodaterol reaches maximum plasma concentrations generally within 10 to 20 minutes following drug inhalation. In healthy volunteers the absolute bioavailability of olodaterol following inhalation was estimated to be approximately 30% whereas the absolute bioavailability was below 1% when given as an oral solution. Thus, the systemic availability of olodaterol after inhalation is mainly determined by lung absorption.

Distribution

Olodaterol exhibits multi-compartmental disposition kinetics after inhalation as well as after intravenous administration. The volume of distribution is high (1110 L), suggesting extensive distribution into tissue. In vitro binding of [14C] olodaterol to human plasma proteins is independent of concentration and is approximately 60%.

Olodaterol is a substrate for the P-gp, OAT1, OAT3 and OCT1 transporter. Olodaterol is not a substrate for the following transporters: BCRP, MRP, OATP2, OATP8, OATP-B, OCT2 and OCT3.

Biotransformation

Olodaterol is substantially metabolized by direct glucuronidation and by O-demethylation at the methoxy moiety followed by conjugation. Of the six metabolites identified, only the unconjugated demethylation product binds to beta2-receptors. This metabolite however is not detectable in plasma after chronic inhalation of the recommended therapeutic dose or doses of up to 4-fold higher. Olodaterol thus is considered the only compound relevant for pharmacological action.

Cytochrome P450 isozymes CYP2C9 and CYP2C8, with negligible contribution of CYP3A4, are involved in the O-demethylation of olodaterol, while uridine diphosphate glycosyl transferase isoforms UGT2B7, UGT1A1, 1A7 and 1A9 were shown to be involved in the formation of olodaterol glucuronides.

Elimination

Total clearance of olodaterol in healthy volunteers is 872 mL/min, and renal clearance is 173 mL/min.

Following intravenous administration of [14C]-labelled olodaterol, 38% of the radioactive dose was recovered in the urine and 53% was recovered in faeces. The amount of unchanged olodaterol recovered in the urine after intravenous administration was 19%. Following oral administration, only 9% of the radioactivity (0.7% unchanged olodaterol) was recovered in urine, while the major portion was recovered in faeces (84%). More than 90% of the dose was excreted within 6 and 5 days following intravenous and oral administration, respectively. Following inhalation, excretion of unchanged olodaterol in urine within the dosing interval in healthy volunteers at steady state accounted for 5-7% of the dose.
Olodaterol plasma concentrations after inhalation decline in a multiphasic manner with a terminal half-life of approximately 45 hours.

c. Characteristics in Patients

A pharmacokinetic meta-analysis was performed utilizing data from 2 controlled clinical trials that included 405 patients with COPD and 296 patients with asthma who received treatment with Striverdi Respimat.

The analysis showed that no dose adjustment is necessary based on the effect of age, gender and weight on systemic exposure in COPD patients after inhalation of Striverdi Respimat.

Renal Insufficiency

There were no clinically relevant increases of systemic exposure in patients with renal impairment.

Hepatic Insufficiency

There was no evidence for differences in elimination of olodaterol, nor did protein binding differ, between subjects with mild or moderate hepatic impairment and their healthy controls. A study in subjects with severe hepatic impairment was not performed.

Race

Comparison of pharmacokinetic data within and across studies revealed a trend for higher systemic exposure in Japanese and other Asians than in Caucasians.

No safety concerns were identified in clinical studies with Caucasians and Asians of up to one year with Striverdi Respimat at doses up to twice the recommended therapeutic dose.

5.3 Preclinical safety data

Effects in non-clinical studies were observed only at exposures considered sufficiently in excess of the maximum human exposure indicating little relevance to clinical use.

Studies on genotoxicity and carcinogenic potential revealed no special hazard for humans. Increased incidences were observed of mesovarian leiomyoma in rats and of uterus leiomyoma and leiomyosarcoma in mice. This is considered a class effect which is observed in rodents after long-term exposure to high doses of β₂-agonists. Up to now, β₂-agonists have not been associated with cancer in humans.

In the rat, no teratogenic effects occurred after inhalation of doses up to 1054 microgram/kg/day (approximately 1600 times the maximum recommended human daily inhalation dose (MRHDID) in adults (5 microgram) on a mg/m² basis). In pregnant NZW rabbits the administered inhalation dose of 2489 microgram/kg/day (exposure multiple versus the MRHDID of >3500 on AUC₀-2₄) of olodaterol exhibited fetal toxicity characteristically resulting from beta-adrenoceptor stimulation; these included patchy ossifications, short/bent bones, partially open eye, cleft palate, cardiovascular abnormalities. No significant effects occurred at an inhalation dose of 974 microgram/kg/day (approximately 1580 times the MRHDID in adults on a mg/m² basis).

6. PHARMACEUTICAL PARTICULARS

6.1 List of excipients

Benzalkonium chloride
Disodium edetate
Water, purified
Citric acid (anhydrous)

6.2 Incompatibilities
Not applicable.

6.3 Shelf life
3 years
In-use shelf life: 3 months

6.4 Special precautions for storage
Do not freeze.

6.5 Nature and contents of container
Type and material of the container in contact with the medicinal product:
Solution filled into a polyethylene/polypropylene cartridge with a polypropylene cap with integrated silicone sealing ring. The cartridge is enclosed within an aluminium cylinder.
Each cartridge contains 4 ml solution for inhalation

Pack sizes and devices supplied:
Single pack: 1 Respimat inhaler and 1 cartridge, providing 60 puffs (30 medicinal doses)
Double pack: 2 single packages, each containing 1 Respimat inhaler and 1 cartridge, providing 60 puffs (30 medicinal doses)
Triple pack: 3 single packages, each containing 1 Respimat inhaler and 1 cartridge, providing 60 puffs (30 medicinal doses)
Eight pack: 8 single packages, each containing 1 Respimat inhaler and one 1 cartridge, providing 60 puffs (30 medicinal doses)
Not all pack sizes may be marketed.

6.6 Special precautions for disposal and other handling
Any unused medicinal product or waste material should be disposed of in accordance with local requirements.

7. MARKETING AUTHORISATION HOLDER
Boehringer Ingelheim International GmbH
Binger Strasse 173
D-55216 Ingelheim am Rhein
Germany

8. MARKETING AUTHORISATION NUMBER(S)
<[To be completed nationally]>
9. DATE OF FIRST AUTHORISATION/RENEWAL OF THE AUTHORISATION

<{DD/MM/YYYY}> <{DD month YYYY}>

<[To be completed nationally]>

10. DATE OF REVISION OF THE TEXT

{MM/YYYY}

<[To be completed nationally]>
PARTICULARS TO APPEAR ON THE OUTER PACKAGING
FOLDING BOX

1. NAME OF THE MEDICINAL PRODUCT

Striverdi Respimat 2.5 microgram, solution for inhalation
Olodaterol

2. STATEMENT OF ACTIVE SUBSTANCE(S)

The delivered dose is 2.5 microgram olodaterol (as hydrochloride) per puff

3. LIST OF EXCIPIENTS

List of excipients:
Benzalkonium chloride
Disodium edetate
Purified water
Citric acid (anhydrous)

4. PHARMACEUTICAL FORM AND CONTENTS

Solution for inhalation
One cartridge contains 4.0 ml providing 60 puffs (30 medicinal doses)

Single pack: 1 Respimat Inhaler and 1 cartridge
Double pack: 2 single packages, each containing 1 Respimat Inhaler and 1 cartridge
Triple pack: 3 single packages, each containing 1 Respimat Inhaler and 1 cartridge
Eight pack: 8 single packages, each containing 1 Respimat Inhaler and 1 cartridge

5. METHOD AND ROUTE(S) OF ADMINISTRATION

Inhalation use
Read the package leaflet before use
Insert cartridge in the Respimat inhaler before first use

6. SPECIAL WARNING THAT THE MEDICINAL PRODUCT MUST BE STORED OUT OF THE SIGHT AND REACH OF CHILDREN

Keep out of the sight and reach of children.

7. OTHER SPECIAL WARNING(S), IF NECESSARY
8. **EXPIRY DATE**

EXP
In-use shelf life: 3 months

9. **SPECIAL STORAGE CONDITIONS**

Do not freeze.

10. **SPECIAL PRECAUTIONS FOR DISPOSAL OF UNUSED MEDICINAL PRODUCTS OR WASTE MATERIALS DERIVED FROM SUCH MEDICINAL PRODUCTS, IF APPROPRIATE**

11. **NAME AND ADDRESS OF THE MARKETING AUTHORISATION HOLDER**

Boehringer Ingelheim International GmbH
D-55216 Ingelheim am Rhein
Germany

12. **MARKETING AUTHORISATION NUMBER(S)**

To be completed nationally

13. **BATCH NUMBER**

Batch:

14. **GENERAL CLASSIFICATION FOR SUPPLY**

Medicinal product subject to medical prescription.

15. **INSTRUCTIONS ON USE**

16. **INFORMATION IN BRAILLE**

Striverdi Respimat
<table>
<thead>
<tr>
<th><strong>MINIMUM PARTICULARS TO APPEAR ON BLISTERS OR STRIPS</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DEVICE – Front label</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>1. NAME OF THE MEDICINAL PRODUCT</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Striverdi Respimat</td>
</tr>
<tr>
<td>2.5 microgram, solution for inhalation</td>
</tr>
<tr>
<td>Olodaterol</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>2. NAME OF THE MARKETING AUTHORITYISATION HOLDER</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Boehringer Ingelheim</td>
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</table>

<table>
<thead>
<tr>
<th><strong>3. EXPIRY DATE</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>(See device back label)</td>
</tr>
<tr>
<td>In-use shelf life: 3 months</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>4. BATCH NUMBER</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>(See device back label)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>5. OTHER</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>60 puffs (30 medicinal doses)</td>
</tr>
</tbody>
</table>
### MINIMUM PARTICULARS TO APPEAR ON BLISTERS OR STRIPS

#### DEVICE – BACK LABEL (Requirements according to Medical Device Directive)

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. NAME OF THE MEDICINAL PRODUCT</strong></td>
<td>Striverdi Respimat Inhaler</td>
</tr>
<tr>
<td><strong>2. NAME OF THE MARKETING AUTHORISATION HOLDER</strong></td>
<td></td>
</tr>
<tr>
<td><strong>3. EXPIRY DATE</strong></td>
<td>EXP</td>
</tr>
<tr>
<td><strong>4. BATCH NUMBER</strong></td>
<td>Batch:</td>
</tr>
<tr>
<td><strong>5. OTHER</strong></td>
<td>Scale for dose indicator  ▶▶ Turn ▶▶</td>
</tr>
</tbody>
</table>
### MINIMUM PARTICULARS TO APPEAR ON SMALL IMMEDIATE PACKAGING UNITS

#### CARTRIDGE LABEL

<table>
<thead>
<tr>
<th>1. NAME OF THE MEDICINAL PRODUCT AND ROUTE(S) OF ADMINISTRATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Striverdi Respimat</td>
</tr>
<tr>
<td>2.5 microgram, solution for inhalation</td>
</tr>
<tr>
<td>Olodaterol</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2. METHOD OF ADMINISTRATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inhalation use</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>3. EXPIRY DATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>EXP</td>
</tr>
<tr>
<td>In-use shelf life: 3 months</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>4. BATCH NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Batch:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>5. CONTENTS BY WEIGHT, BY VOLUME OR BY UNIT</th>
</tr>
</thead>
<tbody>
<tr>
<td>One cartridge contains 4.0 ml providing 60 puffs (30 medicinal doses)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>6. OTHER</th>
</tr>
</thead>
</table>
PACKAGE LEAFLET

Version: September 04, 2013
This medicine is subject to additional monitoring. This will allow quick identification of new safety information. You can help by reporting any side effects you may get. See the end of section 4 for how to report side effects.

Read all of this leaflet carefully before you start taking this medicine because it contains important information for you.
- Keep this leaflet. You may need to read it again.
- If you have any further questions, ask your doctor or pharmacist.
- This medicine has been prescribed for you only. Do not pass it on to others. It may harm them, even if their signs of illness are the same as yours.
- If you get any side effects, talk to your doctor or pharmacist. This includes any possible side effects not listed in this leaflet. See section 4.

What is in this leaflet
1. What Striverdi Respimat is and what it is used for
2. What you need to know before you take Striverdi Respimat
3. How to take Striverdi Respimat
4. Possible side effects
5. How to store Striverdi Respimat
6. Contents of the pack and other information

1. What Striverdi Respimat is and what it is used for

Striverdi Respimat helps people who have chronic obstructive pulmonary disease (COPD) to breathe more easily. COPD is a long-term lung disease that causes shortness of breath and coughing. The term COPD is associated with the conditions chronic bronchitis and emphysema. As COPD is a long-term disease you should take Striverdi Respimat every day and not only when you have breathing problems or other symptoms of COPD.

Striverdi Respimat contains the active substance olodaterol which is a long-acting bronchodilator (long acting beta 2 agonist) that helps to open your airways and makes it easier to get air in and out of the lungs. Regular use of Striverdi Respimat can also help you when you have on-going shortness of breath related to your disease, and will help to minimise the effects of the disease on your everyday life.

2. What you need to know before you take Striverdi Respimat

Do not use Striverdi Respimat
- if you are allergic to olodaterol or any of the other ingredients of this medicine (listed in section 6)
Warnings and precautions

Talk to your doctor or pharmacist before using Striverdi Respimat

- if you have asthma (you should not use Striverdi Respimat for the treatment of asthma).
- if you have diseases of the heart.
- if you have high blood pressure.
- if you have epilepsy.
- if you have a specific thyroid gland problem called thyrotoxicosis.
- if you have an abnormal widening of an artery called aneurysm.
- if you have diabetes.
- if you have severe hepatic impairment, as Striverdi Respimat has not been studied in this patient population.
- if you have severe renal impairment, as there is limited experience with Striverdi Respimat in this patient population.
- in case of a planned surgery

During treatment with Striverdi Respimat

- Stop using the medicine and tell your doctor immediately if you get tightness of the chest, coughing, wheezing or breathlessness immediately after using the medicine. These may be signs of a condition called bronchospasm (see section 4).
- If your breathing has got worse or if you experience rash, swelling or itching directly after using your inhaler, stop using it and tell your doctor immediately (see section 4).
- If you experience any side effects affecting your heart (increase in pulse rate, increase in blood pressure and/or increase in symptoms like chest pain), tell your doctor immediately (see section 4).
- If you experience muscle spasm, muscle weakness or abnormal heart rhythm, consult your doctor as these may be related to low blood levels of potassium (see section 4).

Striverdi Respimat is indicated for the maintenance treatment of your chronic obstructive pulmonary disease. It should not be used to treat a sudden attack of breathlessness or wheezing.

Do not use Striverdi Respimat together with certain medicines containing long-acting β-adrenergic agonists, like salmeterol or formoterol.

If you regularly take certain medicines called short-acting β-adrenergic agents, like salbutamol, continue to use these only to relieve acute symptoms like breathlessness.

Children and adolescents

Striverdi Respimat should not be given to children or adolescents (below the age of 18 years).

Other medicines and Striverdi Respimat

Please tell your doctor or pharmacist if you are taking, or have recently taken any other medicines.

In particular, please tell your doctor if you are using:
- certain medicines for breathing problems that are similar to Striverdi Respimat (β-adrenergic agents). You may be more likely to get side effects.
- medicines called beta blockers that are used for high blood pressure or other heart problems (such as propranolol), or for the eye problem called glaucoma (such as timolol). This may result in loss of the effect of Striverdi Respimat

- medicines that lower the amount of potassium in your blood. These include:
  o steroids (e.g. prednisolone),
  o diuretics (water tablets),
  o medicines for breathing problems such as theophylline.
  If you use these medicines together with Striverdi Respimat you may experience symptoms of muscle spasm, muscle weakness or abnormal heart rhythm.

- medicines called tricyclic antidepressants or MAO inhibitors (like selegiline or moclobemide), that are used to treat neurological or psychiatric disorders like Parkinson’s disease or depression; the use of these drugs will increase the likelihood that you get side effects affecting your heart.

**Pregnancy, breast-feeding and fertility**

If you are pregnant or breast-feeding, think you may be pregnant or are planning to have a baby, ask your doctor or pharmacist for advice before taking this medicine.

**Driving and using machines**

No studies on the effects on the ability to drive and use machines have been performed. If you feel dizzy while taking Striverdi Respimat, do not drive or use any tools or machines.

3. **How to take Striverdi Respimat**

Always take this medicine exactly as your doctor has told you. Check with your doctor or pharmacist if you are not sure.

Striverdi Respimat is for inhalation use only.

**Dosage**

The recommended dose is:

Striverdi Respimat is effective for 24 hours so you will need to use Striverdi Respimat only **ONCE A DAY**, if possible at the same time of the day. Each time you use it take TWO PUFFS.

As COPD is a long-term disease take Striverdi Respimat every day and not only when you experience breathing problems. Do not take more than the recommended dose.

**Use in children and adolescents**

There is no relevant use of Striverdi Respimat in the paediatric population (under 18 years).

Make sure that you know how to use your Striverdi Respimat inhaler properly. The instructions for use of the Striverdi Respimat inhaler are provided on the other side of this leaflet.
If you take more Striverdi Respimat than you should
You may be at a higher risk of experiencing a side effect such as chest pain, high or low blood pressure, faster or irregular heartbeat or feeling of heart beat, dizziness, nervousness, difficulty in sleeping, anxiety, headache, shaking, dry mouth, muscle cramps, nausea, fatigue, malaise, low blood levels of potassium (which may cause symptoms of muscle spasm, muscle weakness or abnormal heart rhythm), high blood sugar, or too much acid in your blood (which may cause symptoms of nausea, vomiting, weakness, muscle cramps and more rapid breathing).

If you forget to take Striverdi Respimat
If you forget to inhale a dose, inhale just one dose at the usual time the next day.
Do not take a double dose to make up for a forgotten dose.

If you stop using Striverdi Respimat
Before you stop taking Striverdi Respimat, you should talk to your doctor or your pharmacist. If you stop taking Striverdi Respimat the signs and symptoms of COPD may worsen.

If you have any further questions on the use of this medicine, ask your doctor or pharmacist.

4. Possible side effects
Like all medicines, this medicine can cause side effects, although not everybody gets them.

Evaluation of the side effects is based on the following frequencies:

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very common</td>
<td>may affect more than 1 in 10 people</td>
</tr>
<tr>
<td>Common</td>
<td>may affect up to 1 in 10 people</td>
</tr>
<tr>
<td>Uncommon</td>
<td>may affect up to 1 in 100 people</td>
</tr>
<tr>
<td>Rare</td>
<td>may affect up to 1 in 1,000 people</td>
</tr>
<tr>
<td>Very rare</td>
<td>may affect up to 1 in 10,000 people</td>
</tr>
<tr>
<td>Not known</td>
<td>frequency cannot be estimated from the available data</td>
</tr>
</tbody>
</table>

The side effects described below have been experienced by people taking this medicine and they are listed according to frequency as either uncommon or rare.

Uncommon:
- Nasopharyngitis (runny nose)
- Dizziness
- Rash

Rare:
- Arthralgia (joint pain)
- Hypertension

You may also experience side effects which are known to occur with certain medicines for breathing problems similar to Striverdi Respimat (beta-adrenergic agents). These may be faster or irregular heartbeat or feeling of heart beat, chest pain, high or low blood pressure, shaking, headache, nervousness, difficulty in sleeping, dizziness, dry mouth, nausea, muscle cramps, fatigue, malaise, low blood levels of potassium (which may cause symptoms of muscle spasm, muscle weakness or abnormal heart rhythm), high blood sugar, or too much acid in your blood (which may cause symptoms of nausea, vomiting, weakness, muscle cramps and more rapid breathing).
Immediate allergic reactions such as rash, nettle rash (urticaria), swelling of the mouth and face or sudden difficulties in breathing (angioneurotic oedema) or other hypersensitivity reactions may occur after administration of Striverdi Respimat. If this occurs, stop using Striverdi Respimat and consult your doctor immediately.

In addition, in common with all inhaled medicines, some patients may experience an unexpected tightness of the chest, coughing, wheezing or breathlessness immediately after inhalation (bronchospasm).

Reporting of side effects
If you get any side effects, talk to your doctor or pharmacist. This includes any possible side effects not listed in this leaflet. You can also report side effects directly via the national reporting system listed in Appendix V. By reporting side effects you can help provide more information on the safety of this medicine.

5. How to store Striverdi Respimat

Keep this medicine out of the sight and reach of children.

Do not freeze.

Do not use this medicine after the expiry date which is stated on the carton and on the inhaler label after EXP. The expiry date refers to the last day of the month. Striverdi Respimat inhaler should be discarded at the latest 3 months after first use.

Do not throw away any medicines via wastewater or household waste. Ask your pharmacist how to throw away medicines you no longer use. These measures will help protect the environment.

6. Contents of the pack and other information

What Striverdi Respimat contains

The active substance is olodaterol. The delivered dose is 2.5 microgram olodaterol (as hydrochloride) per puff.

The delivered dose is the dose which is available for the patient after passing the mouthpiece.

The other ingredients are:

Benzalkonium chloride, disodium edetate, purified water, and citric acid (anhydrous)

What Striverdi Respimat looks like and contents of the pack

Striverdi Respimat 2.5 microgram is composed of one cartridge with solution for inhalation and one Respimat inhaler. The cartridge has to be inserted into the inhaler before the first use.

Single pack: 1 Respimat inhaler and 1 cartridge, providing 60 puffs (30 medicinal doses)

Double pack: 2 single packages, each containing 1 Respimat inhaler and 1 cartridge, providing 60 puffs (30 medicinal doses)
Triple pack: 3 single packages, each containing 1 Respimat inhaler and 1 cartridge, providing 60 puffs (30 medicinal doses)

Eight pack: 8 single packages, each containing 1 Respimat inhaler and 1 cartridge, providing 60 puffs (30 medicinal doses)

Not all pack sizes may be marketed.

**Marketing Authorisation Holder and Manufacturer**

The marketing authorisation holder for Striverdi Respimat is:

Boehringer Ingelheim International GmbH
Binger Straße 173
D-55216 Ingelheim am Rhein
Germany

The manufacturer for Striverdi Respimat is:

Boehringer Ingelheim Pharma GmbH & Co. KG
Binger Straße 173
D-55216 Ingelheim am Rhein
Germany

*This medicinal product is authorised in the Member States of the EEA under the following names:*

**Austria, Liechtenstein:** Striverdi Respimat 2,5 Mikrogramm - Lösung zur Inhalation
**Belgium, Luxembourg:** Striverdi Respimat 2,5 microgrammes, solution pour inhalation
**Bulgaria:** Striverdi Respimat Стриверди Респимат
**Cyprus, Greece:** Striverdi Respimat
**Czech Republic:** Striverdi Respimat 2,5 mikrogramů
**Denmark:** Striverdi Respimat
**Estonia:** Striverdi Respimat
**Finland:** Striverdi Respimat 2,5 mikrog inhalaationeste, lious
**France:** Striverdi Respimat 2,5 microgrammes/dose, solution pour inhalation
**Germany:** Striverdi Respimat 2,5 Mikrogramm/Sprißstoß Lösung zur Inhalation
**Hungary:** Striverdi Respimat 2,5 mikrogram inhalációis oldat
**Iceland:** Striverdi Respimat
**Ireland, Malta, UK:** Striverdi Respimat
**Italy:** Striverdi Respimat 2,5 microgrammi, soluzione per inalazione
**Latvia:** Striverdi Respimat 2,5 mikrogrami šķīdums inhalācijām
**Lithuania:** Striverdi Respimat 2,5 mikrogramo/išpurškime inhaliacinis tirpalas
**Netherlands:** Striverdi Respimat 2,5 microgram, oplossing voor inhalatie
**Norway:** Striverdi
**Poland:** Striverdi Respimat
**Portugal:** Striverdi Respimat
**Romania:** Striverdi Respimat 2,5 micrograme soluție de inhalat
**Slovakia:** Striverdi Respimat
**Slovenia:** Striverdi Respimat 2,5 mikrograma/vdih raztopina za inhaliranje
**Spain:** Striverdi Respimat 2,5 microgramos solución para inhalación
**Sweden:** Striverdi Respimat 2,5 mikrogram, inhalationsvätska, lösning

*This leaflet was last revised in {MM/YYYY}.*
To be completed nationally

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Instructions for Use
Striverdi Respimat inhaler

How to use your Striverdi Respimat inhaler

This leaflet explains how to use and care for your Striverdi Respimat inhaler. Please read and carefully follow these instructions. See also section 3. How to take Striverdi Respimat on the other side of this leaflet.

The Striverdi Respimat inhaler releases medication slowly and gently, making it easy to inhale it into your lungs.

The Striverdi Respimat inhaler enables you to inhale the medicine contained in a cartridge. The full cartridge provides 60 puffs (30 medicinal doses). You will need to use this inhaler only ONCE A DAY, if possible at the same time of the day. Each time you use it take TWO PUFFS. There is enough medicine for 30 days when it is used according to the directions for use. In the box you will find the Striverdi Respimat inhaler and the Striverdi Respimat cartridge. Before the Striverdi Respimat inhaler is used for the first time, the cartridge provided must be inserted.

Striverdi Respimat inhaler and the Striverdi Respimat cartridge

1) Inserting the cartridge

The following steps 1-6 are necessary before first use:

1 With the yellow cap (A) closed, press the safety catch (E) while pulling off the clear base (G).
<p>| | |</p>
<table>
<thead>
<tr>
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<tbody>
<tr>
<td>2</td>
<td>Take the cartridge (H) out of the box. Push the <strong>narrow</strong> end of the cartridge into the inhaler until it <strong>clicks</strong> into place. The cartridge should be pushed <strong>firmly</strong> against a firm surface to ensure that it has gone all the way in (2b). <strong>The cartridge will not be flush with the inhaler, you will still see the silver ring of the lower end of the cartridge.</strong> Do not remove the cartridge once it has been inserted into the inhaler.</td>
</tr>
<tr>
<td>3</td>
<td>Replace the clear base (G). Do not remove the clear base again.</td>
</tr>
</tbody>
</table>
2) To prepare the Striverdi Respimat inhaler for first-time use

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>Hold the Striverdi Respimat inhaler upright, with the yellow cap (A) closed. Turn the base (G) in the direction of the black arrows on the label until it <strong>clicks</strong> (half a turn).</td>
</tr>
<tr>
<td>5</td>
<td>Open the yellow cap (A) until it snaps fully open.</td>
</tr>
</tbody>
</table>
| 6    | Point the Striverdi Respimat inhaler towards the ground. Press the dose release button (D). Close the yellow cap (A).  

**Repeat steps 4, 5 and 6 until a cloud is visible.**

**Then repeat steps 4, 5 and 6 three more times to ensure the inhaler is prepared for use.**

**Your Striverdi Respimat inhaler is now ready to use.**

These steps will not affect the number of doses available. After preparation your Striverdi Respimat inhaler will be able to deliver your 60 puffs (30 medicinal doses).
**Daily use of your Striverdi Respimat inhaler**

You will need to use this inhaler ONLY ONCE A DAY. Each time you use it take TWO PUFFS.

<table>
<thead>
<tr>
<th>I</th>
<th>Hold the Striverdi Respimat inhaler upright, with the yellow cap (A) closed, to avoid accidental release of dose. Turn the base (G) in the direction of the black arrows on the label until it clicks (half a turn).</th>
</tr>
</thead>
<tbody>
<tr>
<td>II</td>
<td>Open the yellow cap (A) until it snaps fully open. Breathe out slowly and fully, and then close your lips around the end of the mouthpiece without covering the air vents (C). Point your Striverdi Respimat inhaler to the back of your throat. While taking in a slow, deep breath through your mouth, press the dose release button (D) and continue to breathe in slowly for as long as you can. Hold your breath for 10 seconds or for as long as comfortable.</td>
</tr>
<tr>
<td>III</td>
<td>Repeat steps I and II so that you get the full dose. You will need to use this inhaler only ONCE A DAY. Close the yellow cap until you use your Striverdi Respimat inhaler again. If Striverdi Respimat inhaler has not been used for more than 7 days release one puff towards the ground. If Striverdi Respimat inhaler has not been used for more than 21 days repeat steps 4 to 6 until a cloud is visible. Then repeat steps 4 to 6 three more times.</td>
</tr>
</tbody>
</table>
When to get a new Striverdi Respimat inhaler

The Striverdi Respimat inhaler contains 60 puffs (30 medicinal doses). The dose indicator shows approximately how much medication is left. When the pointer enters the red area of the scale, there is, approximately, medication for 7 days left (14 puffs). This is when you need to get a new Striverdi Respimat inhaler prescription.

Once the dose indicator has reached the end of the red scale (i.e. all 30 doses have been used), the Striverdi Respimat inhaler is empty and locks automatically. At this point, the base cannot be turned any further.

At the latest, three months after use the Striverdi Respimat inhaler should be discarded even if not all medication has been used.

What if….

<table>
<thead>
<tr>
<th>What if...</th>
<th>Reason</th>
<th>What to do</th>
</tr>
</thead>
<tbody>
<tr>
<td>I can’t turn the base easily.</td>
<td>a) The Striverdi Respimat inhaler is already prepared and ready to use. b) The Striverdi Respimat inhaler is locked after 60 puffs (30 medicinal doses).</td>
<td>a) The Striverdi Respimat inhaler can be used as it is. b) Prepare and use your new Striverdi Respimat inhaler.</td>
</tr>
<tr>
<td>The cap is fully pulled off and apart from the inhaler.</td>
<td>While opening the cap it was pulled too hard.</td>
<td>The cap can easily be attached again.</td>
</tr>
<tr>
<td>I can’t press the dose release button.</td>
<td>The clear base has not been turned.</td>
<td>Turn the clear base until it clicks. (half a turn)</td>
</tr>
<tr>
<td>The clear base springs back after I have turned it.</td>
<td>The clear base was not turned far enough.</td>
<td>Prepare the Striverdi Respimat inhaler for use by turning the clear base until it clicks. (half a turn)</td>
</tr>
<tr>
<td>I can turn the clear base past the point where it clicks.</td>
<td>Either the dose release button has been pressed, or the clear base has been turned too far.</td>
<td>With the yellow cap closed, turn the base until it clicks. (half a turn)</td>
</tr>
</tbody>
</table>

How to care for your inhaler

Clean the mouthpiece including the metal part inside the mouthpiece with a damp cloth or tissue only, at least once a week.

Any minor discoloration in the mouthpiece does not affect the performance of your Striverdi Respimat inhaler.

If necessary, wipe the outside of your Striverdi Respimat inhaler with a damp cloth.
Further Information

The Striverdi Respimat inhaler must not be disassembled after inserting the cartridge and replacing the clear base. Do not touch the piercing element inside the base.