



Medicines & Healthcare products  
Regulatory Agency



## **Public Assessment Report**

**Lemsip Max All in One Lemon Powder for Oral Solution**

**(paracetamol, phenylephrine hydrochloride and  
guaifenesin)**

**PL 00063/0537**

**Reckitt Benckiser Healthcare (UK) Ltd**

## LAY SUMMARY

### Lemsip Max All in One Lemon Powder for Oral Solution

(paracetamol, 1000mg per sachet, phenylephrine hydrochloride 12.2mg per sachet, guaifenesin 200mg per sachet, powder for oral solution)

This is a summary of the Public Assessment Report (PAR) for Lemsip Max All in One Lemon Powder for Oral Solution (PL 00063/00537). It explains how Lemsip Max All in One Lemon Powder for Oral Solution was assessed and its authorisation recommended, as well as its conditions of use. It is not intended to provide practical advice on how to use Lemsip Max All in One Lemon Powder for Oral Solution.

The product will be referred to as Lemsip Max All In One throughout the remainder of this public assessment report.

For practical information about using Lemsip Max All In One patients should read the package leaflet or contact their doctor or pharmacist.

#### **What is Lemsip Max All In One and what is it used for?**

Lemsip Max All In One contains a combination of ingredients (paracetamol, phenylephrine hydrochloride and guaifenesin) which are effective in relieving the symptoms associated with colds and flu, including relief of aches and pains, sore throats, headache, nasal congestion and lowering of temperature and chesty coughs.

This application is identical to Lemsip Max All in One Lemon (PL 00063/0168), which was originally approved to Reckitt Benckiser Healthcare (UK) Limited on 18th December 2006.

#### **How is Lemsip Max All In One used?**

The pharmaceutical form of this medicine is a powder for oral solution and the route of administration is oral (by mouth).

This medicine is to be made into a hot drink. Dissolve one sachet in a mug of hot but not boiling water and stir until dissolved. If preferred sweeten to taste with sugar, honey or the patient's usual sweetener.

It is important to drink plenty of fluids when suffering from colds and flu.

#### **Adults and children 12 years of age and over:**

The dose may be repeated in 4 to 6 hours. **The patient must not take more than four sachets in a total of 24 hours.**

**This medicine must not be given to children under 12 years of age.**

Please refer to section 3 of the package leaflet for information on how to use this medicine.

Lemsip Max All In One can be obtained without a prescription and is a pharmacy medicine (P).

For further information on how Lemsip Max All In One is used, refer to the package leaflet and Summaries of Product Characteristics available on the Medicines and Healthcare products Regulatory Agency (MHRA) website.

### **How does Lemsip Max All In One work?**

Paracetamol acts as a painkiller (analgesic), it is effective against aches and pains (including headache and also fever [antipyretic]). Guaifenesin allows you to cough up phlegm when suffering a chesty cough (expectorant). Phenylephrine hydrochloride reduces swelling in the passages of the nose, relieving nasal congestion and reducing the pressure which may cause a headache (nasal decongestant).

### **What benefits of Lemsip Max All In One have been shown in studies?**

The application for Lemsip Max All In One is considered to be identical to the previously authorised application for Lemsip Max All in One Lemon (PL 00063/0168), with the same benefits and risks, so, no new studies have been provided for Lemsip Max All In One. However, reference is made to the studies for Lemsip Max All in One Lemon (PL 00063/0168).

The company (Reckitt Benckiser Healthcare (UK) Limited) referred to the data provided for the grant of the licence for Lemsip Max All in One Lemon (PL 00063/0168) as a basis for the grant of identical licence for Lemsip Max All In One (PL 00063/0537).

### **What are the possible side effects from Lemsip Max All In One?**

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

Lemsip Max All In One (PL 00063/0537) is considered to be identical to the previously authorised application for Lemsip Max All in One Lemon (PL 00063/0168) with the same benefits and risks.

For a full list of all the side effects reported with Lemsip Max All In One see section 4 of the package leaflet, available on the Medicines and Healthcare products Regulatory Agency (MHRA) website.

### **Why is Lemsip Max All In One approved?**

No new or unexpected safety concerns arose from this application. The MHRA, therefore, considered that the benefits of Lemsip Max All In One outweigh their risks; and the grant of a Marketing Authorisation (licence) was recommended.

### **What measures are being taken to ensure the safe and effective use of Lemsip Max All In One?**

Safety information has been included in the Summary of Product Characteristics and the package leaflet for Lemsip Max All In One including the appropriate precautions to be followed by healthcare professionals and patients.

Known side effects are continuously monitored. Furthermore new safety signals reported by patients/healthcare professionals will be monitored/reviewed continuously.

### **Other information about Lemsip Max All In One**

A Marketing Authorisation was granted in the UK on 13 October 2009.

The full PAR for Lemsip Max All In One follows this summary.

For more information about treatment with Lemsip Max All In One read the package leaflet, or contact your doctor or pharmacist.

This summary was last updated in October 2015.

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## **I INTRODUCTION**

This Marketing Authorisation (MA) application is for a powder for oral solution containing a fixed combination of paracetamol, phenylephrine hydrochloride and guaifenesin. The application is submitted pursuant to Article 10c of Directive 2001/83/EC as amended, so called informed consent application. The reference medicinal product is Lemsip Max All in One Lemon (PL 00063/0168) authorised in the UK in 2006 to Reckitt Benckiser Healthcare (UK) Ltd.

The proposed and reference medicinal products are indicated for relief of symptoms of colds and influenza, including the relief of aches and pains, sore throat, headache, nasal congestion, lowering of temperature and chesty coughs.

The legal Category of this product is a 'Pharmacy' medicine as the pack size is 16 sachets for this product. A valid letter of informed consent and acknowledgement of access to relevant parts of the dossier of the reference medicinal product has been provided by Reckitt Benckiser.

## **II QUALITY ASPECTS**

### **II.1. INTRODUCTION**

This is a simple, piggy back application for Lemsip Max All in One lemon powder for oral Solution (PL 00063/0537) submitted under Article 10c (formerly Article 10.1(a)(i)) of Directive 2001/83/EC, as amended. The proposed MA holder is Reckitt Benckiser Healthcare (UK) Limited, Dansom Lane, Hull, HU8 7DS, East Yorkshire, United Kingdom.

The application cross-refers to Lemsip Max All in One Lemon (PL 00063/0168), which was originally approved to Reckitt Benckiser Healthcare (UK) Limited on 18<sup>th</sup> December 2006.

### **II.2. Drug Substances**

The active ingredients in this product are identical to those in the reference product. Satisfactory letters of access have been provided. Drug substance specifications are identical to the reference product.

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

#### **Other Ingredients**

The other ingredients in the drug product are:

Ascorbic acid  
Sucrose  
Citric acid  
Sodium citrate  
Lemon flavour no. 1  
Aspartame (E951)  
Saccharin sodium and  
Curcumin WD.

These are identical to the reference product.

The manufacturing process and finished product specifications are identical to that of the reference product. The proposed compositions and references to Pharmacopoeial standards are identical to those registered for the reference products.

The product is contained in heat-sealed sachet of paper/polyethylene / aluminium foil/polyethylene laminate in an outer cardboard carton.

The product has a shelf-life of 2 years with the following storage conditions “Do not store above 25°C” and “Store in the original package”.

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

The data submitted with the application is acceptable. The grant of a Marketing Authorisation is recommended.

## **III NON-CLINICAL ASPECTS**

No new non-clinical data have been supplied with this application and none are required for applications of this type.

#### **IV CLINICAL ASPECTS**

##### **Introduction**

As this is an informed consent application submitted under Article 10c of Directive 2001/83/EC, as amended, no new clinical data have been supplied and none are required.

##### **Risk Management Plan (RMP)**

The requirement to submit an RMP with an initial marketing authorisation application came into effect on 21 July 2012. The application was submitted and approved prior to this date.

##### **Discussion on the clinical aspects**

The grant of a Marketing Authorisation is recommended.

#### **V USER CONSULTATION**

User-testing of the PIL for Lemsip Max All in One has been accepted based on the bridging report provided by the applicant making reference to the successful user-testing of the PIL for Lemsip Max All in One Lemon (PL 00063/0168) as the 'parent PIL'.

#### **VI OVERALL CONCLUSION, BENEFIT/RISK ASSESSMENT AND RECOMMENDATION**

##### **QUALITY**

The data for this application is consistent with that previously assessed for the cross-reference product and, as such, have been judged to be satisfactory.

##### **NON-CLINICAL**

No new non-clinical data were submitted and none are required for applications of this type.

##### **EFFICACY**

This application is identical to a previously granted application for Lemsip Max All in One Lemon (PL 00063/0168), which was originally approved to Reckitt Benckiser Healthcare (UK) Limited on 18<sup>th</sup> December 2006.

No new or unexpected safety concerns arise from this application.

The SPC, PIL and labelling are satisfactory and consistent with that for the cross-reference product.

##### **BENEFIT/RISK ASSESSMENT**

The quality of the product is acceptable and no new non-clinical or clinical safety concerns have been identified. The applicant's product is identical to the cross-reference product. Extensive clinical experience with paracetamol, guaifenesin and phenylephrine hydrochloride is considered to have demonstrated the therapeutic value of the compound. The risk:benefit is, therefore, considered to be positive.

##### **Summaries of Product Characteristics (SmPC), Patient Information Leaflets (PIL) and Labels**

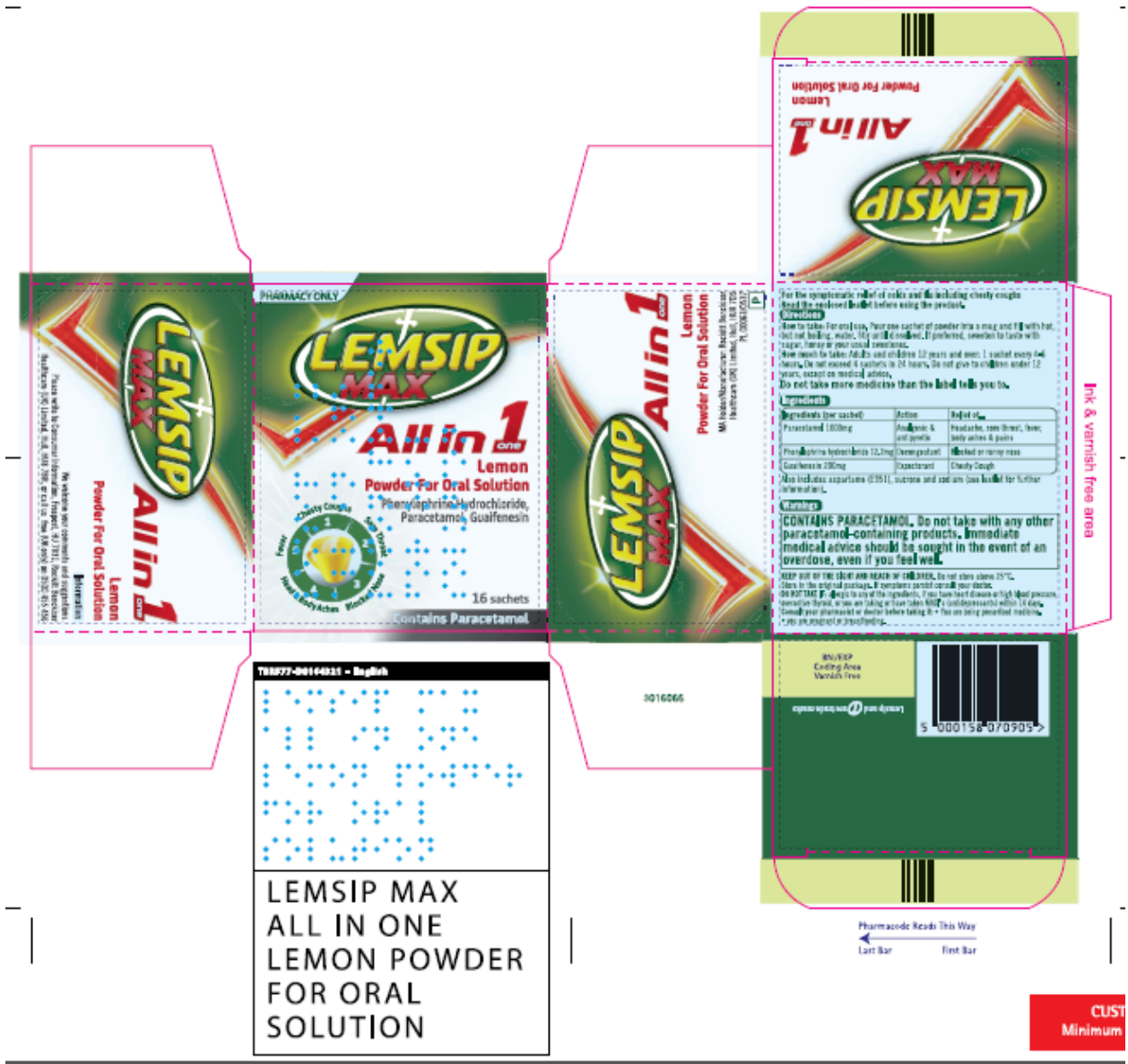
The Summaries of Product Characteristics and Patient Information Leaflets (PIL) are consistent with the details registered for the cross-reference products.

In accordance with Directive 2010/84/EU the Summaries of Product Characteristics (SmPCs) and Patient Information Leaflets (PILs) for products granted Marketing Authorisations at a national level are available on the MHRA website.

The approved labelling for Lemsip Max All In One Lemon Powder for Oral Solution is presented below:







<p><b>DIRECTIONS FOR BEST RESULTS</b></p> <p><b>HOW TO TAKE:</b> For oral use. Pour contents of one sachet into a mug and mix with hot, but not boiling, water. Stir until dissolved. If preferred, sweeten to taste with sugar, honey or your usual sweetener.</p> <p><b>HOW MANY TO TAKE:</b> Adults and Children 12 and over: 1 sachet every 4-6 hours. Do not exceed 4 sachets in 24 hours. Do not give to children under 12, except on medical advice.</p> <p>Do not take more medication than the label tells you to.</p> <p><b>WARNINGS:</b> Each sachet of powder for oral solution contains Paracetamol 500mg, Phenylephrine HCl 12.5mg and Codeine Phosphate 50mg. It contains aspirin, caffeine and sodium bicarbonate for further information. See separate leaflet for further information.</p> <p><b>WARNINGS:</b> Contains paracetamol. Do not take with any other paracetamol-containing products. Beware of weight gain if you are on a diet. In the event of an overdose, even if you feel OK, contact your pharmacist or doctor before taking it. Do not take if you are pregnant. Do not take if you are taking any of the ingredients. If you have heart disease or high blood pressure, keep out of the reach and sight of children.</p> <p>PL 00063/0537 Do not store above 25°C. Store in the original packaging. Lemsip and All in 1 are trademarks.</p> <p>Batch / Expiry Coding Area</p>	<p><b>DIRECTIONS FOR BEST RESULTS</b></p> <p><b>HOW TO TAKE:</b> For oral use. Pour contents of one sachet into a mug and mix with hot, but not boiling, water. Stir until dissolved. If preferred, sweeten to taste with sugar, honey or your usual sweetener.</p> <p><b>HOW MANY TO TAKE:</b> Adults and Children 12 and over: 1 sachet every 4-6 hours. Do not exceed 4 sachets in 24 hours. Do not give to children under 12, except on medical advice.</p> <p>Do not take more medication than the label tells you to.</p> <p><b>WARNINGS:</b> Each sachet of powder for oral solution contains Paracetamol 500mg, Phenylephrine HCl 12.5mg and Codeine Phosphate 50mg. It contains aspirin, caffeine and sodium bicarbonate for further information. See separate leaflet for further information.</p> <p><b>WARNINGS:</b> Contains paracetamol. Do not take with any other paracetamol-containing products. Beware of weight gain if you are on a diet. In the event of an overdose, even if you feel OK, contact your pharmacist or doctor before taking it. Do not take if you are pregnant. Do not take if you are taking any of the ingredients. If you have heart disease or high blood pressure, keep out of the reach and sight of children.</p> <p>PL 00063/0537 Do not store above 25°C. Store in the original packaging. Lemsip and All in 1 are trademarks.</p> <p>Batch / Expiry Coding Area</p>	<p><b>DIRECTIONS FOR BEST RESULTS</b></p> <p><b>HOW TO TAKE:</b> For oral use. Pour contents of one sachet into a mug and mix with hot, but not boiling, water. Stir until dissolved. If preferred, sweeten to taste with sugar, honey or your usual sweetener.</p> <p><b>HOW MANY TO TAKE:</b> Adults and Children 12 and over: 1 sachet every 4-6 hours. Do not exceed 4 sachets in 24 hours. Do not give to children under 12, except on medical advice.</p> <p>Do not take more medication than the label tells you to.</p> <p><b>WARNINGS:</b> Each sachet of powder for oral solution contains Paracetamol 500mg, Phenylephrine HCl 12.5mg and Codeine Phosphate 50mg. It contains aspirin, caffeine and sodium bicarbonate for further information. See separate leaflet for further information.</p> <p><b>WARNINGS:</b> Contains paracetamol. Do not take with any other paracetamol-containing products. Beware of weight gain if you are on a diet. In the event of an overdose, even if you feel OK, contact your pharmacist or doctor before taking it. Do not take if you are pregnant. Do not take if you are taking any of the ingredients. If you have heart disease or high blood pressure, keep out of the reach and sight of children.</p> <p>PL 00063/0537 Do not store above 25°C. Store in the original packaging. Lemsip and All in 1 are trademarks.</p> <p>Batch / Expiry Coding Area</p>
<p>Contains Paracetamol</p> 	<p>Contains Paracetamol</p> 	<p>Contains Paracetamol</p> 

**STEPS TAKEN AFTER ASSESSMENT**

A list of all non-safety variations of clinical relevance that are presented as annexes at the end of this PAR are listed below.

<b>Date submitted</b>	<b>Application type</b>	<b>Scope</b>	<b>Outcome</b>
20/04/2011	Type II	To update Section 5.1 (Pharmacodynamic properties) of the SPC by adding information that the active ingredients are not known to cause sedation.	Granted 26/04/2011
19/01/2015	Type II	PL 00063/0537-0026: To update sections 5.1 and 5.2 of the SmPC following review of the Company Core Data Sheet.	Approved on 04/09/2015

**Annex 1**

<b>Reference:</b>	PL 00063/0537-0009
<b>Product:</b>	Lemsip Max All in One Lemon Powder for Oral Solution
<b>Marketing Authorisation Holder:</b>	Reckitt Benckiser Healthcare (UK) Limited
<b>Active Ingredient(s):</b>	Phenylephrine hydrochloride Guaifenesin Paracetamol

**Reason:**

To update Section 5.1 (Pharmacodynamic properties) of the SmPC by adding information that the active ingredients are not known to cause sedation.

**Supporting Evidence**

In this National Type II complex variation application, the applicant has proposed changes to Section 5.1 of the SmPC. The applicant has submitted:

- Existing and proposed SmPC
- Clinical Overview

**Evaluation**

The applicant has submitted a safety review of the literature regarding the three active ingredients which form the combination of Lemsip product.

- Paracetamol is an analgesic and antipyretic agent used to treat mild to moderate pain. The incidence of adverse events with typical paracetamol use is low and is not associated with sedation.
- Phenylephrine is a decongestant often used in cold and flu preparations. It belongs to a class of alpha adrenergic sympathomimetic drugs. Its main effect is vasoconstriction. It does not cause sedation.
- Guaifenesin is a widely used expectorant in over-the-counter cough and cold preparations. There is no evidence that it causes sedation.

**THE FINAL APPROVED SMPC FRAGMENT, 5.1 (PHARMACODYNAMIC PROPERTIES) IS PRESENTED BELOW:****5.1 Pharmacodynamic properties**

ATC Code: N02B E51.

**Paracetamol:** Paracetamol has both analgesic and antipyretic activity, which is believed to be mediated principally through its inhibition of prostaglandin synthesis within the central nervous system.

**Phenylephrine hydrochloride:** Phenylephrine is a post-synaptic alpha-receptor agonist with

low cardioselective beta-receptor affinity and minimal central stimulant activity. It is a recognised decongestant and acts by vasoconstriction to reduce oedema and nasal swelling.

Guaifenesin: Guaifenesin is an expectorant which reduces the viscosity of tenacious sputum.

The active ingredients are not known to cause sedation.

**Conclusion**

The proposed SPC changes are therefore acceptable.

**Decision – Granted 26/04/2011**

**ANNEX 2**

<b>Our Reference:</b>	PL 00063/0537-0026
<b>Product:</b>	Lemsip Max All in One Lemon Powder for Oral Solution
<b>Marketing Authorisation Holder: Active Ingredient(s):</b>	Reckitt Benckiser Healthcare (UK) Limited Paracetamol, phenylephrine hydrochloride and guaifenesin.
<b>Type of Procedure:</b>	National
<b>Submission Type:</b>	Variation
<b>Submission Category:</b>	Type II
<b>Submission Complexity:</b>	Standard
<b>EU Procedure Number (if applicable):</b>	Not applicable

**Reason:**

To update sections 5.1 and 5.2 of the Summary of Product Characteristics (SmPC) following review of the Company Core Data Sheet.

**Supporting Evidence**

Revised SmPC fragments and clinical overview.

**Evaluation**

The clinical overview and proposed changes to the SmPC are satisfactory. The clinical overview and updated SmPC fragments have been incorporated into the Marketing Authorisation.

**Conclusion**

The proposed changes to the clinical overview and SmPC are acceptable.

**Decision** - Approved on 04 September 2015.