

Public Assessment Report

Mecysteine Hydrochloride 100mg Gastro-resistant Tablets

PL 14894/0297

**MECYSTEINE HYDROCHLORIDE 100MG GASTRO-RESISTANT
TABLETS**

PL 14894/0297

UKPAR

TABLE OF CONTENTS

	Page
Lay Summary	3
Scientific discussion	4
Steps taken for assessment	11
Steps taken after authorisation – summary	12
Summary of Product Characteristics	13
Patient Information Leaflet	18
Labelling	20

MECYSTEINE HYDROCHLORIDE 100MG GASTRO-RESISTANT TABLETS

PL 14894/0297

LAY SUMMARY

The Medicines and Healthcare products Regulatory Agency (MHRA) has granted Ranbaxy (UK) Limited a Marketing Authorisation (licence) for the medicinal product Mecysteine Hydrochloride 100mg Gastro-resistant Tablets (PL 14894/0297). This is a pharmacy (P) medicine used, along with other medicines, to treat conditions in which thick mucus is a problem and in the relief of cough with sputum.

Mecysteine Hydrochloride 100mg Gastro-resistant Tablets reduces the thickness of the mucus by breaking the bonds that make up the mucus molecules.

This application is a duplicate of a previously granted licence for Visclair Tablets 100mg (PL 00622/5003R).

No new or unexpected safety concerns arose from this simple application and it was therefore judged that the benefits of using Mecysteine Hydrochloride 100mg Gastro-resistant Tablets outweigh the risks, hence a Marketing Authorisation has been granted.

MECYSTEINE HYDROCHLORIDE 100MG GASTRO-RESISTANT TABLETS

PL 14894/0297

SCIENTIFIC DISCUSSION

TABLE OF CONTENTS

	Page
Introduction	5
Pharmaceutical assessment	6
Preclinical assessment	8
Clinical assessment	9
Overall conclusions and risk-benefit assessment	10

INTRODUCTION

The UK granted a marketing authorisation for the medicinal product Mecysteine Hydrochloride 100mg Gastro-resistant Tablets (PL 14894/0297) to Ranbaxy (UK) Limited on 24 February 2006. The product is a pharmacy (P) medicine.

This application was submitted as a simple abridged application according to Article 10.1(a)i of Directive 2001/83/EC, cross-referring to Visclair Tablets 100mg (PL 00622/5003R, approved on 15 October 1990).

No new data were submitted for this simple application, nor were any necessary, as the data are identical to that of the previously granted cross-referenced product. As the cross-referenced product was granted prior to the introduction of current legislation, no public assessment report was generated for it.

The product contains the active ingredient mecysteine hydrochloride. Mecysteine hydrochloride is a systemically active mucolytic agent. Double blind clinical trials have demonstrated a significant reduction of cough and sputum in bronchitic patients.

Mecysteine Hydrochloride 100 mg Gastro-resistant Tablets is indicated as an adjunct in the management of conditions such as chronic obstructive pulmonary disease (COPD), when characterised by thick viscid or glutinous mucus, including the symptomatic relief of cough with sputum.

PHARMACEUTICAL ASSESSMENT

PL Number: PL 14894/0297
Name of Product: Mecysteine Hydrochloride 100mg Gastro-resistant Tablets
Active: Mecysteine HCl
Company Name: Ranbaxy (UK) Limited
E.C. Directive: 2001/83/EC Article 10.1(a)(i)
Legal Status: P

Legal basis

This is a simple abridged application for Mecysteine Hydrochloride 100mg Gastro-resistant Tablets.

The applicant claims essential similarity, under article under article 10.1(a)(i), to Visclair 100mg Gastro-resistant Tablets, PL 00622/5003R, held by Sinclair Pharmaceuticals Limited, granted October 1990. It was initially granted a licence of right PLR 00622/5003.

The applicant is currently approved as an own label supplier of the reference product.

Letters of access

A satisfactory letter of access is provided.

Confirmation that the manufacturer is prepared to manufacture the product on the applicant's behalf is provided.

The applicant has provided satisfactory written confirmation that they have access to all the data supporting the application, and that Part II of the data is in their possession.

Expert reports

These are satisfactory.

Product name and appearance

The product name is acceptable.

The product is a round, sugar coated tablet and is unmarked, in line with the reference product. This is accepted.

Summary of Product Characteristics

This is in line with the reference product, except that the dose has been amended slightly. The statement "1 -2 tablets three times daily before meals with a little water" has been changed to "1 -2 tablets three or four times daily before meals with a little water". This change is accepted, as it is in line with the currently approved leaflet for the reference product and is in line with other statements in section 4.2.

Patient information leaflet

A mock up has been provided. It is in line with that approved for the reference product, with Ranbaxy as the own label supplier.

Label

A mock up has been provided. It is in line with that approved for the reference product.

Marketing Authorisation Application (MAA) form

The sites of manufacture, assembly and batch release are in line with the reference product.

TSE

Section 2.6.2 of the MAA form states that the gelatin excipient is an ingredient of animal origin. Certificates of Suitability are provided.

The product is therefore Annex I. This is in line with the reference product.

The stearic acid is of vegetable origin.

Additional data requirements

The method of manufacture and finished product specification are in line with that approved for the reference product and accepted. For the active substance, no pharmacopoeial monograph is available. The Drug Substance Specification provided is considered acceptable.

Conclusion

A product licence may be granted for this product.

PRECLINICAL ASSESSMENT

No new preclinical data have been supplied with this application and none are required for an application of this type.

CLINICAL ASSESSMENT

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

OVERALL CONCLUSION AND RISK-BENEFIT ASSESSMENT

QUALITY

The data for this application are consistent with those previously assessed for the cross-referenced product and as such have been judged to be satisfactory.

PRECLINICAL

No new preclinical data were submitted and none are required for applications of this type.

EFFICACY

This application is identical to a previously granted application for Visclair Tablets 100mg.

No new or unexpected safety concerns arose from this application.

The SPC, PIL and labelling are satisfactory and consistent with those of the cross-referenced product.

RISK-BENEFIT ASSESSMENT

The quality of the product is acceptable and no new preclinical or clinical safety concerns have been identified. The applicant's product is identical to the cross-referenced product. The risk-benefit assessment is therefore considered to be favourable.

MECYSTEINE HYDROCHLORIDE 100MG GASTRO-RESISTANT TABLETS

PL 14894/0297

STEPS TAKEN FOR ASSESSMENT

1	The MHRA received the marketing authorisation application for Mecysteine Hydrochloride 100mg Gastro-resistant Tablets on 31 October 2003.
2	Following standard checks the MHRA informed the applicant that its application was considered valid on 10 December 2003.
3	The MHRA's assessment of the submitted data was completed on 25 June 2004
4	Further information was requested from the company on 25 June 2004.
5	The applicant submitted its response to further information request on 18 November 2004.
6	Additional information was requested from the company on 2 December 2005.
7	The applicant submitted its response to additional information request on 9 January 2006.
8	The applicant was asked to provide some outstanding documentation on 16 February 2006.
9	The applicant submitted the outstanding documentation on 24 February 2006.
10	The MHRA completed its assessment of the application on 24 February 2006.
11	The application was determined on 24 February 2006.

**MECYSTEINE HYDROCHLORIDE 100MG GASTRO-RESISTANT
TABLETS**

PL 14894/0297

STEPS TAKEN AFTER AUTHORISATION - SUMMARY

Date submitted	Application type	Scope	Outcome

SUMMARY OF PRODUCT CHARACTERISTICS

1 NAME OF THE MEDICINAL PRODUCT

Mecysteine Hydrochloride 100 mg Gastro-resistant Tablets

2 QUALITATIVE AND QUANTITATIVE COMPOSITION

100 mg Mecysteine Hydrochloride
For excipients, see section 6.1

3 PHARMACEUTICAL FORM

Gastro-resistant Tablets.
Round, biconvex, yellow, sugar-coated tablets.

4 CLINICAL PARTICULARS

4.1 Therapeutic indications

As an adjunct in the management of conditions such as chronic obstructive pulmonary disease (COPD), when characterised by thick viscid or glutinous mucus, including the symptomatic relief of cough with sputum.

4.2 Posology and method of administration

Adults (including the elderly)

1-2 tablets three or four times daily before meals with a little water.

A rapid clinical effect can be achieved by giving 2 tablets 4 times daily for the first 2 days of therapy.

The standard dose, 2 tablets three times a day, is given for 6 weeks and thereafter the dose should be reduced to 2 tablets twice daily.

Children over 5 years

One tablet 3 times daily.

Children under 5 years

Not recommended.

The tablets should be swallowed whole.

4.3 Contraindications

Mecysteine hydrochloride is contra-indicated in patients with known hypersensitivity to mecysteine, carbocysteine, N-acetylcysteine or to any of the excipients.

4.4 Special warnings and precautions for use

Mecysteine hydrochloride is well tolerated and serious toxic effects have not been reported. It is important that the tablets, which are enteric coated, should be swallowed whole.

Patients with rare hereditary problems of galactose or fructose intolerance, the Lapp lactase deficiency or glucose-galactose malabsorption or sucrose-isomaltase insufficiency should not take this medication.

4.5 Interaction with other medicinal products and other forms of interaction

None known.

4.6 Pregnancy and lactation

Mecysteine hydrochloride is not recommended during pregnancy and lactation.

4.7 Effects on ability to drive and use machines

Not applicable

4.8 Undesirable effects

None known

4.9 Overdose

Overdosage may cause excessive production of bronchial secretions and hence result in respiratory embarrassment. In such cases postural drainage and suction would be advisable.

Experience regarding overdose is limited and treatment in such cases should comprise general supportive symptomatic measures.

5 PHARMACOLOGICAL PROPERTIES

5.1 Pharmacodynamic properties

Mecysteine hydrochloride is a systemically active mucolytic agent. Double blind clinical trials have been demonstrated a significant reduction of cough and sputum in bronchitic patients.

5.2 Pharmacokinetic properties

The sulphhydryl groups in mecysteine are a readily assimilable supply of sulphur which can intervene in the synthesis of mucoproteins to produce mucus of a more normal viscosity. As the tissue becomes saturated with the drug, the disulphide bonds uniting glucoprotein molecules can be severed, breaking down the mucin gel responsible for sputum viscosity.

5.3 Preclinical safety data

There are no preclinical data of relevance to the prescriber, which are additional to that included in other sections of the SPC

6 PHARMACEUTICAL PARTICULARS

6.1 List of excipients

Tablet core:

Lactose Anhydrous
Povidone
Magnesium Stearate
Kaolin Heavy

Gastro-resistant coat:

Stearic Acid
Polyvinylacetate Phthalate

Sugar coat:

Acacia
Gelatin
Sucrose
Calcium Carbonate
Talc
Aluminium Oxide, Hydrated

Colour coat:

Titanium Dioxide (E171)
Quinoline Yellow (E104)
Sunset Yellow (E110)

White Beeswax
Carnauba Wax
Shellac

6.2 Incompatibilities

Not applicable.

6.3 Shelf life

2 years.

6.4 Special precautions for storage

Do not store above 25°C.

6.5 Nature and contents of container

Aluminium/Polythene foil laminate to take 10 tablets.
10 Laminates per carton. Pack size 100 tablets.

6.6 Special precautions for disposal

Not applicable.

7 MARKETING AUTHORISATION HOLDER

Ranbaxy (UK) Limited
95 Park Lane,
Mayfair,
London W1K 7TE
United Kingdom

8 MARKETING AUTHORISATION NUMBER(S)

PL 14894/0297

9 DATE OF FIRST AUTHORISATION/RENEWAL OF THE AUTHORISATION

24/02/2006

10 DATE OF REVISION OF THE TEXT

24/02/2006

Patient Information Leaflet

MECYSTEINE HYDROCHLORIDE 100MG GASTRO-RESISTANT TABLETS

PL 14894/0297

RANBAXY

Patient Information Leaflet

Mecysteine Hydrochloride 100 mg Gastro-Resistant Tablets

Read all of this leaflet carefully before you start taking this medicine.

- Keep this leaflet. You may need to read it again.
- If you have further questions, please ask your doctor or your pharmacist.
- This medicine has been prescribed for you personally and you should not pass it on to others. It may harm them, even if their symptoms are the same as yours.

In this leaflet:

1. What Mecysteine Hydrochloride 100 mg Gastro-resistant Tablets are and what they are used for
2. Before you take Mecysteine Hydrochloride 100 mg Gastro-resistant Tablets
3. How to take Mecysteine Hydrochloride 100 mg Gastro-resistant Tablets
4. Possible side effects
5. Storing Mecysteine Hydrochloride 100 mg Gastro-resistant Tablets

The name of your medicine is Mecysteine Hydrochloride 100 mg Gastro-resistant Tablets and contain 100 mg of mecysteine hydrochloride.

Your tablets also contain the following inactive ingredients: anhydrous lactose anhydrous, povidone, magnesium stearate, heavy kaolin, stearic acid, polyvinylacetate phthalate, acacia, gelatin, sucrose, calcium carbonate, talc, hydrated aluminium oxide, titanium dioxide (E171), quinoline yellow (E104), sunset yellow (E110), white beeswax, carnauba wax and shellac.

Marketing Authorisation Holder: Ranbaxy (UK) Limited, 95 Park Lane, Mayfair, London, W1K 7TE, United Kingdom.

Manufacturer: Custom Pharmaceuticals Limited, Conway Street, Hove, East Sussex, BN3 3LW.

1. What Mecysteine Hydrochloride 100 mg Gastro-resistant Tablets are and what they are used for

Mecysteine Hydrochloride 100 mg Gastro-resistant Tablets are used as an adjunct in the management of conditions such as chronic obstructive pulmonary disease (COPD), when characterised by thick, viscous or glutinous mucus, including the symptomatic relief of cough with sputum.

Mecysteine Hydrochloride 100 mg Gastro-resistant Tablets are round, biconvex, yellow, sugar-coated tablets available in a pack size of 100 tablets.

Mecysteine Hydrochloride 100 mg Gastro-resistant Tablets are used together with other medicines to help in the treatment of conditions in which thick mucus is a problem e.g. sinusitis (inflamed nasal tubes), secretory otitis media (discharge from the middle ear) and in the symptomatic relief of cough with sputum.

2. Before you take Mecysteine Hydrochloride 100 mg Gastro-resistant Tablets

Do not take Mecysteine Hydrochloride 100 mg Gastro-resistant Tablets and speak to your doctor or pharmacist if any of the following apply to you:

- You have previously had an allergic reaction to mecysteine, carbocysteine or N-acetylcysteine or to any of the tablet ingredients listed above.

Talk to your doctor or pharmacist before taking this medicine if any of the following apply to you:

- You are pregnant, or planning to become pregnant, or are breast feeding.

Pregnancy and breast-feeding

Ask your doctor or pharmacist for advice before taking this medicine.

Important information about some of the ingredients of Mecysteine Hydrochloride 100 mg Gastro-resistant Tablets

Your medicine contains lactose and sugar. If you have been told by your doctor that you have an intolerance to some sugars, contact your doctor before taking this medicinal product.

Your medicine contains sunset yellow (E110) which may cause allergic reactions.

3. How to take Mecysteine Hydrochloride 100 mg Gastro-resistant Tablets

Take your medicine as instructed by your doctor. Do not take more than the doctor told you. Check the label carefully for how much to take and how often to take it. Your pharmacist or doctor can help if you are not sure.

For Adults and the Elderly: 1-2 tablets three to four times daily before meals with a little water. A rapid clinical effect can be achieved by giving 2 tablets 4 times daily for the first 2 days of therapy. The standard dose, 2 tablets 3 times a day, is given for 6 weeks and thereafter, the dose should be reduced to 2 tablets twice daily.

For Children over 5 years: One tablet three times daily.

For Children under 5 years: Not recommended.

Swallow the tablets just as they are with a glass of water. Do not crush or chew the tablets as they are enteric coated.

If you take too many Mecysteine Hydrochloride 100 mg Gastro-resistant Tablets

If you have taken more Mecysteine Hydrochloride 100 mg Gastro-resistant Tablets than you should, consult your doctor or go to the nearest hospital casualty department immediately. Take this leaflet with you so your doctor will know what you have taken.

If you forget to take your Mecysteine Hydrochloride 100 mg Gastro-resistant Tablets

If you forget to take Mecysteine Hydrochloride 100 mg Gastro-resistant Tablets at the right time, skip the missed dose and go back to your regular dosing schedule. Do not take a double dose to make up for forgotten individual doses.

4. Possible side effects

Please tell your doctor or pharmacist if you are getting any untoward effects.

5. Mecysteine Hydrochloride 100 mg Gastro-resistant Tablets

Do not store above 25°C.

Keep out of the reach and sight of children.

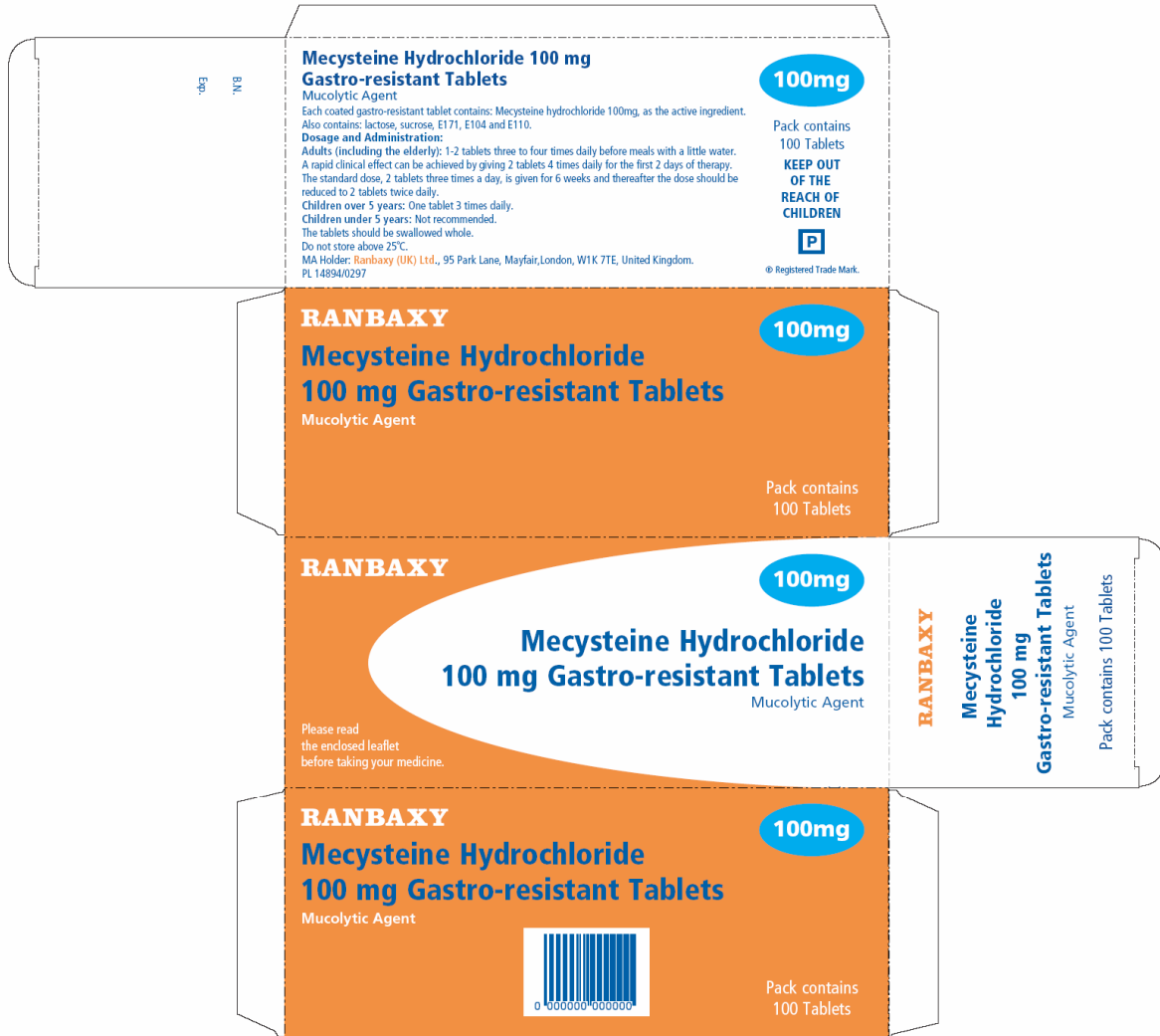
Do not take after the expiry date on the labelling.

Date of leaflet preparation: December 2005.

Labelling

MECYSTEINE HYDROCHLORIDE 100MG GASTRO-RESISTANT TABLETS

PL 14894/0297



**MECYSTEINE HYDROCHLORIDE 100MG GASTRO-RESISTANT
TABLETS**

PL 14894/0297

MA Holder: Ranbaxy (UK) Ltd.			MA Holder: Ranbaxy (UK) Ltd.		
RANBAXY Mecysteine Hydrochloride 100 mg Gastro-resistant Tablets	RANBAXY Mecysteine Hydrochloride 100 mg Gastro-resistant Tablets	RANBAXY Mecysteine Hydrochloride 100 mg Gastro-resistant Tablets	RANBAXY Mecysteine Hydrochloride 100 mg Gastro-resistant Tablets	RANBAXY Mecysteine Hydrochloride 100 mg Gastro-resistant Tablets	
RANBAXY Mecysteine Hydrochloride 100 mg Gastro-resistant Tablets	RANBAXY Mecysteine Hydrochloride 100 mg Gastro-resistant Tablets	RANBAXY Mecysteine Hydrochloride 100 mg Gastro-resistant Tablets	RANBAXY Mecysteine Hydrochloride 100 mg Gastro-resistant Tablets	RANBAXY Mecysteine Hydrochloride 100 mg Gastro-resistant Tablets	