Strepsils Dry Cough 5mg Dextromethorphan hydrobromide

1 PRODUCT NAME

Strepsils Dry Cough Lozenge

2 QUALITATIVE AND QUANTITATIVE COMPOSITION

Dextromethorphan hydrobromide monohydrate 5 mg

For full list of excipients, see section 6.1

3 PHARMACEUTICAL FORM

Strepsils Dry Cough are light orange coloured circular lozenges with each lozenge containing 5mg Dextromethorphan hydrobromide monohydrate

4 CLINICAL PARTICULARS

4.1 Therapeutic indications

Strepsils Dry Cough helps to soothe sore throats.

4.2 Dose and method of administration

Posology: If symptoms are severe or persist for more than 7 days seek advice of doctor (see section 4.4).

Adults, the elderly and children 12 years of age and over: Take 2 lozenges (one immediately after the other) and allow each lozenge to dissolve slowly in the mouth; may be repeated every 4 hours, not to exceed 12 lozenges in any 24-hour period, or as directed by a doctor.

Children under 12 years of age: The product is contraindicated in children under 12 years of age.

Method of administration: For oral administration

4.3 Contraindications

Hypersensitivity to dextromethorphan hydrobromide or to any of the excipients in the product.

Dextromethorphan should not be given to patients with or at risk of developing respiratory failure, respiratory insufficiency and respiratory depression, e.g. asthma, chronic obstructive airways disease, or pneumonia.

Patients taking monoamine oxidase inhibitors (MAOIs) or who have taken MAOIs with the previous 14 days.

Children under 12 years of age.

4.4 Special warnings and precautions for use

If symptoms are severe or persist for more than 7 days, or are accompanied by fever, headache, nausea and vomiting, seek the advice of a doctor.

Cases of dextromethorphan abuse have been reported. Caution is particularly recommended for adolescents and young adults as well as in patients with a history of drug abuse or psychoactive substances.

Dextromethorphan is metabolised by hepatic cytochrome P450 2D6. The activity of this enzyme is genetically determined. About 10% of the general population are poor metabolisers via CYP2D6. Poor metabolisers and patients with concomitant use of CYP2D6 inhibitors may experience exaggerated and/or prolonged effects of dextromethorphan. Caution should therefore be exercised in patients who are poor metabolisers via CYP2D6 or use CYP2D6 inhibitors (see also section 4.5).

Dextromethorphan should not be used for chronic persistent cough accompanying a disease state, or for cough associated with excessive secretions.

Caution is needed in patients with a history of asthma and it should not be given during an acute attack.

The product should be given cautiously to the elderly, to the debilitated and to patients with epilepsy, impaired cardiac conduction, shock or hepatic impairment.

Keep out of the sight and reach of children.

Serotonin Syndrome
Serotonergic effects, including the development of a potentially life-threatening serotonin syndrome, have been reported for dextromethorphan with concomitant administration of serotonergic agents, such as selective serotonin re-uptake inhibitors (SSRIs), drugs which impair metabolism of serotonin (including monoamine oxidase inhibitors (MAOIs)) and CYP2D6 inhibitors. Serotonin syndrome may include mental-status changes, autonomic instability, neuromuscular abnormalities, and/or gastrointestinal symptoms. If serotonin syndrome is suspected, treatment with Strepsils Dry Cough lozenge should be discontinued.

If dextromethorphan is used in combination with secretolytics in patients with pre-existing chest disease such as cystic fibrosis and bronchiectasis who are affected by mucus hypersecretion reduced cough reflex can lead to serious accumulation of mucus.

In patients with neurological illness associated with a markedly reduced cough reflex (such as stroke, Parkinson's disease and dementia) antitussive treatment should be administered with particular caution and only after careful benefit-risk assessment.

4.5 Interaction with other medicines and other forms of interaction

Do not use in patients taking monoamine oxidase inhibitors (MAOIs) or who have taken MAOIs within the previous 14 days.

Concomitant use of dextromethorphan and monoamine oxidase inhibitors could result in symptoms such as hyperpyrexia, hallucinations, gross excitation or coma.

Concomitant use of dextromethorphan and other CNS depressants (e.g. alcohol, narcotic analgesics and tranquillizers) may increase the CNS depressant effects of these drugs.

CYP2D6 inhibitors: Dextromethorphan is primarily metabolised by the cytochrome P450 isoenzyme CYP2D6 and has an extensive first-pass metabolism. Concomitant use of potent CYP2D6 enzyme inhibitors can increase the dextromethorphan concentrations in the body to levels multi-fold higher than normal. This increases the patient's risk for toxic effects of dextromethorphan (agitation, confusion, tremor, insomnia, diarrhoea and respiratory depression) and development of serotonin syndrome. Potent CYP2D6 enzyme inhibitors include fluoxetine, paroxetine, quinidine and terbinafine. In concomitant use with quinidine, plasma concentrations of dextromethorphan have increased up to 20-fold, which has increased the CNS adverse effects of the agent. Amiodarone, flecainide and propafenone, sertraline, bupropion, methadone, cinacalcet, haloperidol, perphenazine and thioridazine also have similar effects on the metabolism of dextromethorphan. If concomitant use of CYP2D6 inhibitors and dextromethorphan is necessary, the patient should be monitored and the dextromethorphan dose may need to be reduced.

Concomitant use of dextromethorphan and other CNS depressants (e.g. Alcohol, narcotic analgesics and tranquilizers) may increase the CNS depressant effects of these drugs and should therefore be avoided.

4.6 Fertility, pregnancy and lactation

Pregnancy:

Medical supervision is recommended for the use of dextromethorphan in pregnancy.

There are limited amounts of data from the use of dextromethorphan hydrobromide in pregnant women, with inconclusive data from human exposure regarding teratogenicity.

No information is available on the placental transfer of dextromethorphan. The molecular weight of dextromethorphan is low enough that transfer to the foetus should be anticipated.

The safety of dextromethorphan hydrobromide during pregnancy and lactation has not been established. It is considered prudent to advise against use during pregnancy in the absence of recommendations by a healthcare professional. This update is in line with the conflicting conclusions from exposure identified in the literature, which include case-control studies and case reports.

Breastfeeding:

There is insufficient information on the excretion of dextromethorphan hydrobromide/ metabolites in human milk. The relatively low molecular weight of dextromethorphan indicates that passage into milk may occur.

Since safe use of dextromethorphan hydrobromide during lactation has not been fully established, it is considered prudent to advise against use during breastfeeding in the absence of recommendations by a healthcare professional. This update is in line with the limited literature available to inform dextromethorphan use during breastfeeding. There is no identified literature which reports the use of dextromethorphan during human lactation or measuring the amount excreted into milk.

Fertility:
No known effects.

4.7 Effects on ability to drive and use machines

This product has minor influence on the ability to drive and use machines. The risk of impairment is increased when dextromethorphan is taken concurrently with alcohol or medicines that can impair reaction times.
Dextromethorphan can cause dizziness and drowsiness.

4.8 Undesirable effects

Reporting suspected adverse reactions after authorisation of the medicine is important. It allows continued monitoring of the benefit/risk balance of the medicine. Healthcare professionals are asked to report any suspected adverse reactions https://nzphvc.otago.ac.nz/reporting/.

Adverse events which have been associated with dextromethorphan hydrobromide are given below, tabulated by system organ class and frequency. Frequencies are defined as:
Very common (≥1/10)
Common (≥1/100 and <1/10)
Uncommon (≥1/1000 and <1/100)
Rare (≥1/10,000 and <1/1000)
Very rare (<1/10,000)
Not known (cannot be estimated from the available data)

System Organ Class	Frequency	Adverse Events
Psychiatric disorders	Common Very rare Not known	Confusion Drug dependence Hallucinations
Nervous System Disorders	Very common Not known	Dizziness, somnolence Vertigo, slurred speech and nystagmus, dystonia especially in children
Immune System Disorders	Not known	Hypersensitivity, urticaria, fixed drug eruption, anaphylactic reaction, angioedema, bronchospasm

Gastrointestinal Disorders	Common	Gastrointestinal disorders (nausea, vomiting)
	Not known	Constipation
		Abdominal discomfort
General disorders and administration site conditions	Common	Fatigue
Respiratory, Thoracic and Mediastinal Disorders	Not known	Respiratory depression

4.9 Overdose

Symptoms and signs:

Dextromethorphan overdose may be associated with nausea, vomiting, dystonia, agitation, confusion, somnolence, stupor, nystagmus, cardiotoxicity (tachycardia, abnormal ECG including QTc prolongation), ataxia, toxic psychosis with visual hallucinations, hyperexcitability. In the event of massive overdose the following symptoms may be observed: coma, respiratory depression, convulsions.

Management:

Treatment of overdose should be symptomatic and supportive. The specific narcotic antagonist naloxone can be used to reverse the effects of dextromethorphan hydrobromide, however this treatment route may not be effective in paediatric cases.

Activated charcoal can be administered to asymptomatic patients who have ingested overdoses of dextromethorphan within the preceding hour. For patients who have ingested dextromethorphan and are sedated or comatose, naloxone, in the usual doses for treatment of opioid overdose, can be considered. Benzodiazepines for seizures and benzodiazepines and external cooling measures for hyperthermia from serotonin syndrome can be used.'

{For advice on the management of overdose please contact the National Poisons Centre on 0800 POISON (0800 764766).}

5 PHARMACOLOGICAL PROPERTIES

5.1 Pharmacodynamic properties

Pharmacotherapeutic Group: Opium alkaloids and derivatives ATC Code: R05DA09

Dextromethorphan hydrobromide is a cough suppressant used for the relief of non-productive cough. With antitussive doses, the cough threshold is elevated centrally without appreciable effects on the respiratory, cardiovascular or gastrointestinal systems or sedation. It has a central action on the cough centre in the medulla.

5.2 Pharmacokinetic properties

Following oral administration, dextromethorphan hydrobromide is rapidly absorbed from the gastrointestinal tract.

Dextromethorphan undergoes rapid and extensive first-pass metabolism in the liver after oral administration. Genetically controlled O-demethylation (CYP2D6) is the main determinant of dextromethorphan pharmacokinetics in human volunteers. It appears that there are distinct phenotypes for this oxidation process resulting in highly variable pharmacokinetics between subjects. Unmetabolised dextromethorphan, together with the three demethylated morphinan metabolites dextrorphan (also known as '3-hydroxy-Nmethylmorphinan'), 3-hydroxymorphinan and 3-methoxymorphinan have been identified as conjugated products in the urine. Dextrorphan, which also has antitussive action, is the main metabolite. In some individual's metabolism proceeds more slowly and unchanged dextromethorphan predominates in the blood and urine.

5.3 Preclinical safety data

There are no preclinical safety data of relevance to the consumer.

6 PHARMACEUTICAL PARTICULARS

6.1 List of excipients

Strepsils Dry Cough lozenges contain anise oil, brilliant scarlet 4R, Capsicum annuum, Cassia Oil, Clove Leaf Oil, Eucalyptus Oil, liquid glucose, magnesium trisilicate, menthol, Peppermint Oil, saccharin sodium, sucrose, sunset yellow FCF.

6.2 Incompatibilities

Not applicable

6.3 Shelf life

2 years

6.4 Special precautions for storage

Store below 30 degrees Celsius

6.5 Nature and contents of container <and special equipment for use, administration or implantation

Blister: FILM,MLR,PVC250/PVDC40, 115mm

6.6 Special precautions for disposal <and other handling>

No special requirements for disposal.

7 MEDICINE SCHEDULE

Restricted. Pharmacist Medicine Only

8 SPONSOR

Reckitt Benckiser (New Zealand) Limited
Private Bag 93523
Takapuna 0740
Auckland, New Zealand

9 DATE OF FIRST APPROVAL

DD/MM/YYYY

10 DATE OF REVISION OF THE TEXT

23 November 2020

11 SUMMARY TABLE OF CHANGES

Not applicable