

CHESTON CS Syrup (Dextromethorphan hydrobromide + Chlorpheniramine maleate)

Composition

CHESTON CS Syrup

Each 5ml contains:

Dextromethorphan Hydrobromide IP..... 10 mg

Chlorpheniramine Maleate IP 4 mg

Dosage Form

Syrup

Pharmacology

Pharmacodynamics

Dextromethorphan Hydrobromide

Dextromethorphan is a non-opioid, antitussive drug. It exerts its anti-tussive activity by acting on the cough centre in the medulla oblongata, raising the threshold for the cough reflex. A single oral dose of 10-20 mg dextromethorphan produces its anti-tussive action within 1 hour and lasts for at least 4 hours.

Chlorpheniramine Maleate

Chlorpheniramine antagonises competitively the effects of histamine on H₁-receptors and also has weak antimuscarinic and moderate antiserotonin and local anaesthetic actions. It penetrates the brain and causes stimulation or sedation in animals.

Pharmacokinetics

Dextromethorphan Hydrobromide

Dextromethorphan is well absorbed from the gut following oral administration. Due to individual differences in the metabolism of dextromethorphan, pharmacokinetic values are highly variable. After the administration of a 20 mg dose of dextromethorphan to healthy volunteers, the C_{max} varied from

Chlorpheniramine Maleate

Chlorpheniramine maleate is almost completely absorbed after administration by mouth, peak plasma concentrations occurring at about 2.5 to 6 hours. The drug is widely distributed including passage into the CNS, with a volume of distribution of between 1 and 10L/KG. About 70% of chlorpheniramine in the circulation is protein-bound. Chlorpheniramine undergoes some first pass metabolism and enterohepatic recycling. Chlorpheniramine is extensively metabolised, principally to inactive desmethylated metabolites which are excreted primarily in the urine, together with about 35% unchanged drug. Only trace amounts are excreted in the faeces. The mean elimination half-life

has been reported to be about 30 hours, with mean values ranging from 2 to 43 hours.

Indications

CHESTON CS Syrup is indicated for dry cough, allergic cough, post-operative cough, smokers cough and night-time cough.

Dosage and Administration

Adults

5ml (one teaspoonful) four times daily

Children (above 6 years of age)

2.5ml (half teaspoonful) four times daily

Children (2-6 years of age)

1.25ml (one -fourth teaspoonful) four times daily

Contraindications

It is contraindicated for newborns, lactating mothers and patients who are sensitive to the ingredients of related compounds.

Warnings and Precautions

General

Dextromethorphan Hydrobromide

Dextromethorphan hydrobromide should not be administered to patients with chronic or persistent cough, such as occurring with asthma, or where cough is accompanied by excessive secretions, unless directed by a physician.

There have been no specific studies of Dextromethorphan hydrobromide in renal or hepatic dysfunction. Due to the extensive hepatic metabolism of dextromethorphan, caution should be exercised in the presence of hepatic impairment.

Chlorpheniramine Maleate

This medicine should be given with caution to patients with epilepsy, severe cardiovascular disorders, liver disorders, glaucoma, urinary retention, prostatic enlargement, pyloroduodenal obstruction, asthma, bronchitis, bronchiectasis, thyrotoxicosis and severe hypertension.

Special care should be taken when using chlorpheniramine maleate in children and the elderly as they are more prone to developing neurological anticholinergic effects.

Warning: May cause drowsiness. If affected do not drive or operate machinery. Avoid alcoholic drink.

If symptoms do not go away within 5 days talk to your pharmacist or doctor.

Keep all medicines out of the reach of children.

Although most antihistamines should be avoided by patients with porphyria, chlorpheniramine maleate has been used and is thought to be safe.

Drug Interactions

Dextromethorphan Hydrobromide

The concomitant use of a dextromethorphan-containing product and monoamine oxidase inhibitors (MAOIs) can occasionally result in symptoms such as hyperpyrexia, hallucinations, gross excitation or coma.

Chlorpheniramine Maleate

This medicine may enhance the sedative effects of alcohol, hypnotics, anxiolytics, sedatives, opioid analgesics and neuroleptics.

The antimuscarinic effects of chlorpheniramine are enhanced by other antimuscarinic drugs and both antimuscarinic and sedative effects are enhanced by monoamine oxidase inhibitors (concurrent therapy with which is contraindicated, above) and tricyclic antidepressants.

Metabolism of phenytoin may be inhibited by chlorpheniramine with the possible development of phenytoin toxicity.

Pregnancy

Dextromethorphan Hydrobromide

Although dextromethorphan has been in widespread use for many years without apparent ill consequences, there is insufficient information on the effects of administration during human pregnancy.

Chlorpheniramine Maleate

There are no adequate controlled studies of chlorpheniramine in pregnant women and this medicine should therefore not be used during pregnancy.

Lactation

Dextromethorphan Hydrobromide

It is not known whether dextromethorphan or its metabolites are excreted in breast milk. Dextromethorphan should, therefore, only be used when the potential benefit of treatment to the mother exceeds any possible hazards to the suckling infant.

Chlorpheniramine Maleate

Chlorpheniramine may be secreted in breast milk and its use is not recommended in nursing mothers because of the risk of adverse effects, such as unusual excitement or irritability in infants. Chlorpheniramine may also inhibit lactation.

Undesirable Effects

Dextromethorphan Hydrobromide

Side effects attributed to dextromethorphan are uncommon; occasionally, dizziness, nausea, vomiting, or gastro-intestinal disturbances may occur.

Chlorpheniramine Maleate

The product may cause drowsiness, which may progress to deep sleep, headache, dizziness, psychomotor impairment, inability to concentrate, lassitude, irritability and antimuscarinic effects such as urinary retention, dry mouth and blurred vision. Gastrointestinal disturbances may occur including abdominal pain, dyspepsia and anorexia. Paradoxical CNS stimulation may occur especially in children or after high doses. Skin rashes including exfoliative dermatitis and photosensitivity reactions and hypersensitivity reactions including urticaria may occur. Other side effects include convulsions, sweating, myalgia, paraesthesia, tinnitus, palpitations, tachycardia, arrhythmias, chest pain, haemolytic anaemia and other blood dyscrasias, extrapyramidal effects, tremor, liver dysfunction, including hepatitis and jaundice, sleep disturbances, including nightmares, depression, hypotension, hair loss, thickening of bronchial secretions and confusional psychosis in the elderly.

Glycerol may cause headache, stomach upset and diarrhoea.

Sodium benzoate is a mild irritant to the skin, eyes and mucous membranes. It may increase the risk of jaundice in newborn babies.

Overdosage

Dextromethorphan Hydrobromide

Signs and symptoms

The effects of acute toxicity from Dextromethorphan overdose may include drowsiness, lethargy, nystagmus, ataxia, respiratory depression, nausea, vomiting, and hyperactivity.

Treatment

Treatment should be symptomatic and supportive. Gastric lavage may be of use. Naloxone has been used successfully as a specific antagonist to dextromethorphan toxicity in children.

Chlorpheniramine Maleate

Overdosage with chlorpheniramine is associated with antimuscarinic, extrapyramidal, gastrointestinal and CNS effects. In infants and children, CNS stimulation predominates over CNS depression, causing ataxia, excitement, tremors, psychosis, hallucinations and convulsions. Hyperpyrexia may also occur. Other symptoms of overdosage in children include dilated pupils, dry mouth, facial flushing. Deepening coma and cardiorespiratory collapse may follow, and even death. In adults CNS depression is more common with drowsiness, coma and convulsions, progressing to respiratory failure or possibly cardiovascular collapse including arrhythmias.

In severe overdosage the stomach should be emptied. Activated charcoal has been given as have saline laxatives. Convulsions may be controlled with diazepam or phenytoin, although it has been suggested that CNS depressants should be avoided. Other treatment is supportive and symptomatic and may include artificial respiration, external cooling for hyperpyrexia and intravenous fluids. Vasopressors such as noradrenaline or phenylephrine may be used to counteract hypotension. Forced diuresis, peritoneal dialysis or haemodialysis appear to be of limited benefit.

Packaging Information

CHESTON CS Syrup: Bottle of 100 ml

Last updated: November 2013
Last reviewed: November 2013