SALBUTAMOL TABLETS BP 4 MG

1. Name of the medicinal product

1.1 (Invented) name of the medicinal product

INN (GENERIC NAME)

SALBUTAMOL TABLETS BP 4 MG

1.2 Strength :- 4 MG

1.3 Pharmaceutical form :- Tablets

2. QUALITATIVE AND QUANTITATIVE COMPOSITION

SALBUTAMOL TABLETS BP 4 MG

Each uncoated tablet contains:
- Salbutamol Sulphate BP Eq. to Salbutamol (4 mg)
- Excipients : (0 QS)

Batch Size: 100,000

Tablets

Sr. No.	Ingredients	Specification	Qty/Tablet (mg)	Quantity/ Batch (kg)	% overages
Active					
1.	Salbutamol sulphate BP ≡ Salbutamol	BP	4.80 ≡4.00	0.48	Nil
Excipients					
2.	Dibasic calcium Phosphate	BP	123.73	12.373	Nil
3.	Maize Starch	BP	100.0	10.869	8%
4.	Maize Starch (Paste)	BP	6.00	0.652	8%
5.	Methyl paraben	BP	0.015	0.0015	Nil
6.	Propyl paraben	BP	0.003	0.0003	Nil
7.	Erythrosine	IH	0.120	0.0120	Nil
8.	Purified Talc	BP	2.00	0.2	Nil
9.	Magnesium stearate	BP	1.33	0.133	Nil
10.	Maize Starch	BP	2.00	0.2	Nil

BP = British Pharmacopoeia
*8 % Maize starch taken extra to compensate loss on drying.

3. PHARMACEUTICAL FORM. :

Pink coloured, circular, flat, uncoated tablets, having a embossing “SALBUTAMOL 4” on one side & breakline on one other side of each tablet.

4. CLINICAL PARTICULARS

4.1 Therapeutic indications:

1. For the relief of bronchospasm in bronchial asthmas of all types.
2. Chronic bronchitis.
3. Emphysema.

4.2 Posology and method of administration:

Route of administration Oral.

Adults:

The usual effective dose is 4mg three or four times per day. If adequate bronchodilation is not obtained each single dose may be gradually increased to as much as 8mg. However, it has been established that some patients obtain adequate relief with 2mg three or four times daily. In elderly patients or in those known to be unusually sensitive to beta-adrenergic stimulant drugs, it is advisable to initiate treatment with 2mg three or four times per day.

Children:

The following doses should be administered three or four times daily.

2-6 years: 1-2mg

6-12 years: 2mg

Over 12 years: 2-4mg

The product is not recommended for children under 2 years of age. The drug is well tolerated by children so that, if necessary, these doses may be cautiously increased.

4.3 Contraindications:

1. Salbutamol should not be used for threatened abortion during the first or second trimester of pregnancy.
2. Salbutamol and beta-blocking drugs such as propranolol should not usually be prescribed together.
3. Salbutamol tablets are contraindicated in patients with a history of hypersensitivity to any of their components.

4.4 Special warnings and precautions for use:

Patients with rare hereditary problems of galactose intolerance, the lapp lactase deficiency or glucose – galactose malabsorption should not take this medicine.

Bronchodilators should not be the only or main treatment in patients with severe or unstable asthma.

Increasing use of bronchodilators in particular short-acting inhaled $beta_2$-agonists to relieve symptoms indicates deterioration of asthma control. If patients find that short acting relief bronchodilator treatment becomes less effective or they need more inhalations than usual, medical attention must be sought.

Salbutamol causes peripheral vasodilation which may result in reflex tachycardia and increased cardiac output.

Hyperthyroidism

Salbutamol should only be administered cautiously to patients suffering from thyrotoxicosis after careful evaluation of the benefits and risks of treatment.

Constant monitoring of potassium levels in patients with severe asthma is essential, potentially serious hypokalaemia may result from beta-2 agonist therapy.

In common with other β-adrenoceptor agonists, salbutamol can induce reversible metabolic changes such as increased blood glucose levels.

Diabetes

Administration of beta agonists is associated with a rise of blood glucose. Therefore blood glucose and lactate levels should be monitored in diabetics and diabetic treatment adjusted accordingly to meet the needs of the diabetic during tocolysis. Diabetic patients may be unable to compensate for the increase in blood glucose and the development of ketoacidosis has been reported.

Concurrent administration of corticosteroids can exaggerate this effect.

Cardiovascular effects may be seen with sympathomimetic drugs, including salbutamol. There is some evidence from post-marketing data and published literature of myocardial ischaemia associated with beta agonists.

Respiratory indications

Patients with underlying severe heart disease (e.g. ischaemic heart disease, arrhythmia or severe heart failure) who are receiving salbutamol should be warned to seek medical advice if they experience chest pain or other symptoms of worsening heart disease. Attention should be paid to assessment of symptoms such as dyspnoea and chest pain, as they may be of either respiratory or cardiac origin.

4.5 Interaction with other medicinal products and other forms of interaction:

The effects of salbutamol may be altered by guanethidine, reserpine, methyldopa, tricyclic antidepressants and monoamine oxidase inhibitors.

There is an increased risk of hypokalaemia if high doses of theophylline or high doses of corticosteroids are given with higher doses of salbutamol.

Halogenated anaesthetics

Owing to the additional antihypertensive effect, there is increased uterine inertia with risk of haemorrhage; in addition, serious ventricular rhythm disorders due to increased cardiac reactivity, have been reported on interaction with halogenated anaesthetics. Treatment should be discontinued, whenever possible, at least 6 hours before any scheduled anaesthesia with halogenated anaesthetics.

Anti-diabetics

The administration of beta-agonists is associated with a rise of blood glucose, which can be interpreted as an attenuation of anti-diabetic therapy; therefore individual anti-diabetic therapy may need to be adjusted.

Potassium depleting agents

Owing to the hypokalaemic effect of beta-agonists, concurrent administration of serum potassium depleting agents known to exacerbate the risk of hypokalaemia, such as diuretics, digoxin, methyl xanthines and corticosteroids, should be administered cautiously after careful evaluation of the benefits and risks with special regard to the increased risk of cardiac arrhythmias arising as a result of hypokalaemia.

4.6 Pregnancy and lactation:

Salbutamol should only be used during pregnancy if it is considered essential by the physician.

As salbutamol is probably secreted in breast milk its use in nursing mothers requires careful consideration. It is not known whether salbutamol has a harmful effect on the neonate, and so its use should be restricted to situations where it is felt that the expected benefit to the mother is likely to outweigh any potential risk to the neonate.

4.7 Effects on ability to drive and use machines:

Not known.

4.8 UNDESIRABLE EFFECTS:

The only side effect of significance is a fine tremor of skeletal muscle, which occurs in some patients, usually the hands and the effects are dose related. A few patients feel tense; this is also due to the effects on skeletal muscle and not to direct CNS stimulation. With doses of salbutamol higher than those recommended or in patients who are unusually sensitive to beta-adrenergic stimulants, peripheral vasodilation and a compensatory increase in heart rate may occur.

Occasionally headaches have been reported. Lactic acidosis, myoclonus, pulmonary oedema, hypokalaemia, cardiac arrhythmias may also occur and very rarely hypersensitivity reactions including angioedema, urticaria, bronchospasm, hypotension and collapse.

There have been spontaneously reports of myocardial ischemia in post-marketing experience (frequency unknown).

4.9 OVERDOSE:

The preferred antidote for overdosage with salbutamol is a cardioselective beta blocking agent, but beta blocking drugs should be used with caution in patients with a history of bronchospasm.

Hypokalaemia may occur following overdose with salbutamol. Serum potassium levels should be monitored.

5 Pharmacological Properties:

5.1 Pharmacodynamic properties:

Salbutamol is a selective beta-2-adrenergic agonist administered for the symptomatic relief of bronchospasm associated with chronic or acute asthma, brochitis or other obstructive pulmonary diseases. Because of its relative specificity for β_2 receptors, salbutamol relaxes smooth muscle of the bronchi, uterus and vascular supply to the skeletal muscle, but generally has much less stimulant action on the heart than does isoproterenol which has powerful action on all beta receptors.

5.2 Pharmacokinetic properties:

Salbutamol is readily absorbed from the gastrointestinal tract. Its effects occur within 15 minutes and last for about 14 hours. The drug is excreted in urine in about 24 hours, 50% of the drug being excreted within 4 hours. The peak plasma concentration of salbutamol and its metabolites is 5.1-11.7µg% at 2.5-3 hours after an oral dose of 4mg. Salbutamol does not cross the blood brain barrier to a significant extent, but it crosses the placental barrier.

5.3 Preclinical safety data :

None stated.

6 Pharmaceutical Particulars

6.1 List of Excipients.

Sr. No.	Excepients	Quality standard	Overages (%)
1.	Dibasic calcium Phosphate	BP	0%
2.	Maize Starch	BP	0%
3.	Maize Starch (Paste)	BP	0%
4.	Methyl paraben	BP	0%
5.	Propyl paraben	IH	0%
6.	Erythrosine	BP	8%
7.	Purified Talc	BP	0%
8.	Magnesium stearate	BP	0%
9.	Maize Starch	BP	0%

6.2 Incompatibilities

Not applicable.

6.3 Shelf life

3 Years

6.4 Special precautions for storage

Store below 30°C.

6.5 Nature and contents of container

Blister Pack 10 Tablets.

Jar Pack of 1000 tablets.