PACKAGE INSERT TEMPLATE FOR SALBUTAMOL METERED DOSE INHALER

Brand or Product Name
[Product name] Metered Dose Inhaler 100µg/actuation

Name and Strength of Active Substance(s)
Salbutamol sulphate ….mg equivalent to salbutamol 100µg/actuation

Product Description
[Visual description of the appearance of the product]
eg Pressurized metered-dose inhaler, metal can with concave base fitted with a metering valve, contains CFC-free propellant HFA 134a

Pharmacodynamics

Salbutamol is a selective β_2 adrenoceptor agonist. At therapeutic doses it acts on the β_2 adrenoceptors of bronchial muscle, with little or no action on the β_1 adrenoceptors of cardiac muscle. It is suitable for the management and prevention of attack in asthma.

Pharmacokinetics

Salbutamol MDI provides short-acting (4 to 6 hour) bronchodilation with fast onset (within 5 minutes) in reversible airway obstruction.

Salbutamol administered intravenously has a half-life of 4 to 6 hours and is cleared partly renally and partly by metabolism to the inactive 4' -O'-sulphate (phenolic sulphate) which is also excreted primarily in the urine. The faeces are a minor route of excretion. The majority of a dose of salbutamol given intravenously, orally or by inhalation is excreted within 72 hours. Salbutamol is bound to plasma proteins to the extent of 10%.

After administration by the inhaled route between 10 and 20% of the dose reaches the lower airways. The remainder is retained in the delivery system or is deposited in the oropharynx from where it is swallowed. The fraction deposited in the airways is absorbed into the pulmonary tissues and circulation but is not metabolised by the lung. On reaching the systemic circulation it becomes accessible to hepatic metabolism and is excreted, primarily in the urine, as unchanged drug and as the phenolic sulphate. The swallowed portion of an inhaled dose is absorbed from the gastrointestinal tract and undergoes considerable first-pass metabolism to the phenolic sulphate. Both unchanged drug and conjugate are excreted primarily in the urine.

Indication

Salbutamol MDI is indicated for the relief and prevention of asthma symptoms. It should be used to relieve symptoms when they occur, and to prevent them in those circumstances recognised by the patient to precipitate an asthma attack (e.g. before exercise or unavoidable allergen exposure).

Salbutamol MDI is also indicated as relief medication in mild, moderate or severe asthma, provided that reliance on it does not delay the introduction and use of regular inhaled corticosteroid therapy.

Recommended Dosage

Salbutamol has a duration of action of four to six hours in most patients.

Increasing use of β_2 agonists may be a sign of worsening asthma. Under these conditions a reassessment of the patient"s therapy plan may be required and concomitant glucocorticosteroid therapy should be considered.

As there may be adverse effects associated with excessive dosing, the dosage or frequency of administration should only be increased on medical advice.

Salbutamol MDI is administered by the oral inhaled route only.

In patients who find co-ordination of a pressurised metered-dose inhaler difficult a spacer may be used with Salbutamol MDI. Babies and young children may benefit from use of a spacer device with Salbutamol MDI.

Relief of acute bronchospasm
Adults - 100 or 200 micrograms.
Children - 100 micrograms, the dose may be increased to 200 micrograms if required.

Prevention of allergen or exercise-induced bronchospasm
Adults - 200 micrograms before challenge.
Children - 100 micrograms before challenge, the dose may be increased to 200 micrograms if required.

Chronic therapy
Adults - Up to 200 micrograms four times daily.
Children - Up to 200 micrograms four times daily.

On demand use of salbutamol should not exceed four times daily. Reliance on such supplementary use or a sudden increase in dose indicates deteriorating asthma.

Mode of Administration
Inhalation

Contraindications

Salbutamol preparations are contraindicated in patients with a history of hypersensitivity to any of their components.

Although intravenous salbutamol and occasionally salbutamol tablets are used in the management of premature labour, uncomplicated by conditions such as placenta praevia, ante-partum haemorrhage or toxaemia of pregnancy, inhaled salbutamol preparations are not appropriate for managing premature labour. Salbutamol preparations should not be used for threatened abortion.

Warnings and Precautions

The management of asthma should normally follow a stepwise programme, and patient response should be monitored clinically and by lung function tests.

Increasing use of short-acting inhaled β_2 agonists to control symptoms indicates deterioration of asthma control. Under these conditions, the patient's therapy plan should be reassessed. Sudden and progressive deterioration in asthma control is potentially life-threatening and consideration should be given to starting or increasing corticosteroid therapy. In patients considered at risk, daily peak flow monitoring may be instituted.

In the event of a previously effective dose of inhaled Salbutamol MDI failing to give relief for at least three hours, the patient should be advised to seek medical advice in order that any necessary additional steps may be taken.

The patient's inhaler technique should be checked to make sure that aerosol actuation is synchronised with inspiration of breath for optimum delivery of the drug to the lungs.

Salbutamol should be administered cautiously to patients with thyrotoxicosis.

Potentially serious hypokalaemia may result from β_2 agonist therapy mainly from parenteral and nebulised administration.

Particular caution is advised in acute severe asthma as this effect may be potentiated by concomitant treatment with xanthine derivatives, steroids, diuretics and by hypoxia. It is recommended that serum potassium levels are monitored in such situations.

Effect on ability to drive and use machines – none known

Interactions with Other Medicaments

Salbutamol and non-selective beta-blocking drugs,such as propranolol, should not usually be prescribed together.

Concomitant use of salbutamol and tricyclic antidepressants or monoamine oxidase inhibitors may cause a potentiation of the vascular effects of Salbutamol. Salbutamol is not contra-indicated in patients under treatment with monoamine oxidase inhibitors (MAOIs).

Statement on Usage During Pregnancy and Lactation

Administration of drugs during pregnancy should only be considered if the expected benefit to the mother is greater than any possible risk to the foetus.

During worldwide marketing experience, rare cases of various congenital anomalies, including cleft palate and limb defects have been reported in the offspring of patients being treated with salbutamol. Some of the mothers were taking multiple medications during their pregnancies.

Because no consistent pattern of defects can be discerned, and baseline rate for congenital anomalies is 2-3%, a relationship with salbutamol use cannot be established.

As salbutamol is probably secreted in breast milk its use in nursing mothers is not recommended unless the expected benefits outweigh any potential risk. It is not known whether salbutamol in breast milk has a harmful effect on the neonate.

Adverse Effects / Undesirable Effects

Salbutamol MDI may cause a fine tremor of skeletal muscle, usually the hands are obviously affected. This effect is common to all beta-adrenergic stimulants.

Occasionally headaches have been reported.

Peripheral vasodilatation and a compensatory small increase in heart rate may occur in some patients.

Hypersensitivity reactions including angioedema, urticaria, bronchospasm, hypotension and collapse have been reported very rarely.

There have been very rare reports of muscle cramps.

As the other inhalation therapy, paradoxical bronchospasm may occur with an immediate increase in wheezing after dosing. This should be treated immediately with an alternative presentation or a different fast-acting inhaled bronchodilator. Salbutamol Respirator Solution and Salbutamol Solution for Inhalation should be discontinued immediately, the patient assessed, and if necessary alternative therapy instituted.

Potentially serious hypokalaemia may result from β_2 agonists therapy.

As with other β_2 agonists hyperactivity has been reported rarely in children.

Mouth and throat irritation may occur with inhaled salbutamol.

Cardiac arrhythmias (including atrial fibrillation, supraventricular tachycardia and extrasystoles) may occur in some patients.

Tachycardia may occur in some patients.

Overdose and Treatment

Overdosage symptoms are those of excessive β-stimulation, e.g. seizures, angina, hypertension or hypotension, tachycardia with rates up to 200 beats/min, arrhythmias, nervousness, headache, tremor, dry mouth, palpitation, nausea, dizziness, fatigue and insomnia. Hypokalaemia may occur following overdose with salbutamol. Serum potassium levels should be monitored.

Treatment consists of discontinuation of salbutamol together with appropriate symptomatic therapy. Administer a cardioselective β-adrenergic blocker (e.g.acebutalol, atenolol, metoprolol), if necessary for cardiac arrhythmias. However, β -adrenergic blocker should be used with caution because it could induce severe bronchospasm.

Instructions for Use
[To add appropriate information and graphic]

Storage Conditions
[eg Store below ….°C]

Dosage Forms and Packaging Available
[Packaging type & pack size]

Name and Address of Manufacturer
[Name & full address of manufacturer]

Name and Address of Marketing Authorization Holder

[Name & full address of marketing authorization holder]

Date of Revision of Package Insert
[day/month/year]