IMPORTANT:-
Do not rush Stages 4, 5 and 6. It is important that you start to breathe in as slowly as possible just before operating your Inhaler.
Practise in front of a mirror for the first few times. If you see 'mist' coming from the top of the inhaler or the sides of your mouth you should start again from stage 2.
If your doctor has been given you different instructions for using your inhaler, please follow them carefully. Tell your doctor if you have any difficulties.
*CLEANING:-
Your inhaler should be cleaned at least once a week.
1. Remove the metal canister from the plastic casing of the inhaler and remove the mouthpiece cover.
2. Rinse the actuator thoroughly under warm running water.
3. Dry the actuator THOROUGHLY inside and out.
4. Replace the metal canister and mouthpiece cover.

DO NOT PUT THE METAL CANISTER INTO WATER.

7. MARKETING AUTHORIZATION HOLDER

As registered locally.

8. MARKETING AUTHORIZATION NUMBER(S)

As registered locally.

9. DATE OF FIRST AUTHORIZATION/RENEWAL OF AUTHORIZATION

As registered locally.

10. DATE OF (PARTIAL) REVISION OF TEXT

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GlaxoSmithKline

Ventoline 100 microgrammes suspension for inhalation

1. TRADE NAME OF THE MEDICINAL PRODUCT

Ventoline.

2. QUALITATIVE AND QUANTITATIVE COMPOSITION

Ventoline is a pressurised metered-dose inhaler which delivers 100 µg salbutamol (as sulphate) per actuation, into the mouthpiece of a specially designed actuator. The inhaler also contains the CFC-free propellant HFA134a. Each canister contains at least 200 actuations.

3. PHARMACEUTICAL FORM

Pressurised inhalation, solution.

4. CLINICAL PARTICULARS

4.1. Therapeutic Indications

Salbutamol is a selective $ß_2$ adrenoceptor agonist. At therapeutic doses it acts on the $ß_2$ adrenoceptors of bronchial muscle, with little or no action on the $ß_1$ adrenoceptors of the heart. With its fast onset of action, it is particularly suitable for the management and prevention of attack in mild asthma and for the treatment of acute exacerbations in moderate and severe asthma.
Bronchodilators should not be the only or main treatment in patients with severe or unstable asthma. Severe asthma requires regular medical assessment as death may occur. Patients with severe asthma have constant symptoms and frequent exacerbations, with limited physical capacity, and PEF values below 60% predicted at baseline with greater than 30% variability, usually not returning entirely to normal after a bronchodilator. These patients will require high dose inhaled (e.g >1mg/day beclomethasone dipropionate) or oral corticosteroid therapy.
With this primary background corticosteroid treatment, provides essential rescue medication for a severe asthmatic in treating acute exacerbations. Failure to respond promptly or fully to such rescue medication signals a need for urgent medical advice and treatment.
Salbutamol provides short-acting (4 hour) bronchodilation with fast onset (within 5 minutes) in reversible airways obstruction due to asthma, chronic bronchitis and emphysema. It is suitable for long-term use in the relief and prevention of asthmatic symptoms.
Salbutamol should be used to relieve symptoms when they occur and to prevent them in those circumstances recognised by the patient to precipitate an asthmatic attack (e.g. before exercise or unavoidable allergen exposure).
Salbutamol is particularly valuable as rescue medication in mild, moderate or severe asthma, provided that reliance on it does not delay the introduction and use of regular inhaled corticosteroid therapy.

4.2. Posology and Method of Administration

*Ventoline is administered by the oral inhaled route only.
Salbutamol has a duration of action of 4 to 6 hours in most patients.
*Increasing use of $ß_2$ 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.
In patients who find co-ordination of a pressurised metered-dose inhaler difficult a Volumatic spacer may be used with Ventoline. (Recommended statement for use only in those markets where the Volumatic spacer device is available).
Babies and young children may benefit from use of the Babyhaler spacer device with Ventoline. (Recommended statement for use only in those markets where the Babyhaler spacer device is available).
*As there may be adverse effects associated with excessive dosing, the dosage or frequency of administration should only be increased on medical advice.
Relief of acute bronchospasm:-
Adults: 100 or 200 µg.
Children: 100 µg, the dose may be increased to 200 µg if required.
Prevention of allergen or exercise-induced bronchospasm:-
Adults: 200 µg before challenge
Children: 100 µg before challenge, the dose may be increased to 200 µg if required.
Chronic therapy:-
Adults: Up to 200 µg four times daily
Children: Up to 200 µg four times daily
On demand use of should not exceed four times daily. Reliance on such supplementary use or a sudden increase in dose indicates deteriorating asthma (see 4.4 Special Warnings and Special Precautions for Use).

4.3. Contra-indications

*Ventoline is contra-indicated in patients with a history of hypersensitivity to any of its components.
Although intravenous salbutamol and occasionally salbutamol tablets are

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

4.4. Special Warnings and Special Precautions for Use

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 $ß_2$ 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 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 $ß_2$ 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.

4.5. Special Warnings and Special Precautions for Use

*Salbutamol and non-selective ß-blocking drugs, such as propranolol, should not usually be prescribed together.
Salbutamol is not contra-indicated in patients under treatment with monoamine oxidase inhibitors (MAOIs).

4.6. Use 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.

4.7. Effects on Ability to Drive and Use Machines

None reported.

4.8. Undesirable Effects

Ventoline may cause a fine *tremor of skeletal muscle, usually the hands are most obviously affected. This effect is dose related and is common to all ß-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 with 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. Ventoline should be discontinued immediately, the patient assessed, and if necessary alternative therapy instituted.
*Potentially serious hypokalaemia may result from $ß_2$ agonist therapy.
*As with other $ß_2$ 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, usually in susceptible patients.
*Tachycardia may occur in some patients.

4.9. Overdose

The preferred antidote for overdosage with Salbutamol is a cardioselective ß-blocking agent. 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 $ß_2$ adrenoceptor agonist. At therapeutic doses it acts on the $ß_2$ adrenoceptors of bronchial muscle, with little or no action on the $ß_1$ adrenoceptors of cardiac muscle.

5.2. Pharmacokinetic Properties

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.

5.3. Preclinical Safety Data

In common with other potent selective $ß_2$ receptor agonists, salbutamol has been shown to be teratogenic in mice when given subcutaneously. In a reproductive study, 9.3% of foetuses were found to have cleft palate, at 2.5 mg/kg, 4 times the maximum human oral dose. In rats, treatment at the levels of 0.5, 2.32, 10.75 and 50mg/kg/day orally throughout pregnancy resulted in no significant foetal abnormalities. The only toxic effect was an increase in neonatal mortality at the highest dose level as the result of lack of maternal care. A reproductive study in rabbits revealed cranial malformations in 37% of foetuses at 50mg/kg/day, 78 times the maximum human oral dose.
HFA 134a has been shown to be non-toxic at very high vapour concentrations, far in excess of those likely to be experienced by patients, in a wide range of animal species exposed daily for periods of two years.

6. PHARMACEUTICAL PARTICULARS

6.1. List of Excipients

1,1,1,2-tetrafluoroethane (also known as HFA 134a or norflurane).

6.2. Incompatibilities

None reported.

6.3. Shelf Life

24 months below 30° C.

6.4. Special Precautions for Storage

*Ventoline should be stored below 30°C.
*Protect from frost and direct sunlight.
As with most inhaled medications in aerosol canisters, the therapeutic effect of this medication may decrease when the canister is cold.
The canister should not be broken, punctured or burnt, even when apparently empty.

6.5. Nature and Contents of Container

Ventoline comprises a suspension of salbutamol sulphate in the non-CFC propellant HFA 134a. The suspension is contained in an aluminium alloy can, sealed with a metering valve. Each canister is fitted with a plastic actuator incorporating an atomising nozzle and fitted with a dustcap. Ventoline delivers 100 µg of salbutamol (as sulphate) per actuation. Each canister contains at least 200 actuations.

6.6. Instructions for Use/Handling

Testing your inhaler:-
Before using for the first time remove the mouthpiece cover by gently squeezing the sides of the cover, shake the inhaler well, and release two puffs into the air to make sure that it works. If it has not been used for several days shake it well and release one puff into the air to make sure that it works.
Using your inhaler:-

1. Remove the mouthpiece cover by gently squeezing the sides of the cover and check the mouthpiece inside and outside to see that it is clean.
2. Shake the inhaler well.
3. Hold the inhaler upright between fingers and thumb with your thumb on the base, below the mouthpiece.
4. Breathe out as far as is comfortable and then place the mouthpiece in your mouth between your teeth and close your lips around it but do not bite it.
5. Just after starting to breathe in through your mouth press down on the top of the inhaler to release salbutamol while still breathing in steadily and deeply.
6. While holding your breath, take the inhaler from your mouth and take your finger from the top of the inhaler. Continue holding your breath for as long as is comfortable.
7. If you are to take further puffs keep the inhaler upright and wait about half a minute before repeating steps 2 to 6.

The mouthpiece cover is replaced by firmly pushing and snapping the cap into position.