Summary of Product Characteristics for Pharmaceutical Products

1. Name of the medicinal product:

BETAMETHASONE AND DEXCHLORPHENIRAMINE MALEATE ORAL SOLUTION (0.25 MG/2 MG)

2. Qualitative and quantitative composition

Each 5mL contains:
Betamethasone.....0.25mg
Dexchlorpheniramine maleate.....2mg

For a full list of excipients, see section 6.1.

3. Pharmaceutical form

Oral solution

Visual description: Light Pink colour syrup

4. Clinical particulars

4.1 Therapeutic indications

Treatment of difficult cases of respiratory, dermatologic and ocular allergies, as well as ocular inflammatory disorders, where adjunctive systemic corticosteroid therapy is indicated.

4.2 Posology and method of administration

Dose should be individualized and adjusted according to the specific disease being treated, its severity and the response of the patient. Adults and Children >12 years: Recommended Initial Dose: 1-2 tsp 4 times daily, after meals and at bedtime. Do not exceed 8 tsp daily.

In younger children, adjust dose according to severity of the condition and response of the patient rather than by age or body weight. Children 6-12 years: Recommended Dose: 1⁄2 tsp 3 times daily. If an additional daily dose is required, it should be taken preferably at bedtime. Do not exceed 4 tsp daily; 2-6 years: Initial Dose: 1⁄4-1⁄2 tsp 3 times daily with dose adjustment according to patient response. Do not exceed 2 tsp daily.

Method of administration

For oral administration

4.3 Contraindications

Hypersensitivity or idiosyncrasy to any component of Betamethasone and Dexchlorpheniramine Maleate Oral Solution or other drugs of similar chemical structures; patients with systemic fungal infections; patients receiving MAOI therapy; newborn and premature infants.

4.4 Special warnings and precautions for use

Betamethasone: Dosage adjustments may be required for remission or exacerbation of the disease process, patient's individual response to therapy and exposure of patient to emotional or physical stress eg, serious infection, surgery or injury.
Monitoring may be necessary for up to 1 year following cessation of long-term or high-dose corticosteroid therapy.

The lowest possible dose of corticosteroid should be used to control the condition under treatment. A gradual dosage reduction is recommended.
Corticosteroid effect is enhanced in patients with hypothyroidism or cirrhosis.
Cautious use of corticosteroids is advised in patients with ocular herpes simplex because of possible corneal perforation.

Psychic derangements may appear with corticosteroid therapy. Existing emotional instability or psychotic tendencies may be aggravated by corticosteroids.
Corticosteroids should be used with caution in nonspecific ulcerative colitis if there is a probability of impending perforation, abscess or other pyogenic infection; diverticulitis; fresh intestinal anastomoses; active or latent peptic ulcer; renal insufficiency; hypertension; osteoporosis and myasthenia gravis. Since complications of glucocorticoid treatment are dependent on dosage and duration of therapy, a risk/benefit decision must be made with each patient.

Corticosteroids may mask some signs of infection and new infections may appear during use. When corticosteroids are used, decreased resistance and inability to localize infection may occur.
Prolonged corticosteroid use may produce posterior subcapsular cataracts (especially in children), glaucoma with possible damage to the optic nerves, and may enhance secondary ocular infections due to fungi or viruses.

Average and large doses of corticosteroids can cause elevation of blood pressure, salt and water retention, and increased excretion of potassium. These effects are less likely to occur with the synthetic derivatives except when used in large doses. Dietary salt restrictions and potassium supplementation may be considered. All corticosteroids increase calcium excretion.

While on corticosteroid therapy, patients should not be vaccinated against smallpox. Other immunization procedures should not be undertaken in patients receiving corticosteroids, especially high doses, because of possible hazards of neurological complications and lack of antibody response. Patients on immunosuppressant's and corticosteroids should be warned to avoid exposure to chickenpox or measles, and if exposed, to seek medical advice. This is of particular importance in children.

Corticosteroid therapy in active tuberculosis patients should be restricted to those cases of fulminating or disseminated tuberculosis in which concomitant appropriate antituberculous regimen is used. If corticosteroids are indicated in patients with latent tuberculosis, close observation is necessary since reactivation of the disease may occur. During prolonged corticosteroid therapy, patients should receive chemoprophylaxis.

Corticosteroid therapy may alter the motility and number of spermatozoa.
Dexchlorpheniramine Maleate: Use with caution in patients with narrow-angle glaucoma, stenosing peptic ulcer, pyloroduodenal obstruction, prostatic hypertrophy or bladder neck obstruction, cardiovascular disease including hypertension, increased intraocular pressure or hyperthyroidism.

Effects on the Ability to Drive or Operate Machinery: Patients should be warned about engaging in activities requiring mental alertness eg, driving a car or operating appliances, machinery and others.

Use in pregnancy & lactation: Use of Betamethasone and Dexchlorpheniramine Maleate Oral Solution during pregnancy, in nursing mothers or in women of childbearing age requires that the possible benefits of the drug be weighed against potential hazards to mother and fetus or infant.
Infants born of mothers who have received substantial corticosteroid doses during pregnancy should be carefully observed for signs of hypoadrenalism.

Use in children: Safety and effectiveness of Betamethasone and Dexchlorpheniramine Maleate Oral Solution in children <2 years have not been established.
Betamethasone: Growth and development of children on prolonged corticosteroid therapy should be carefully monitored since corticosteroid administration can disturb growth rates and inhibit endogenous corticosteroid production in these patients.

Use in the elderly: Dexchlorpheniramine Maleate: Conventional antihistamines may cause dizziness, sedation and hypotension in patients >60 years.

4.5 Interaction with other medicinal products and other forms of interaction

Betamethasone: Concurrent use of phenobarbital, phenytoin, rifampin or ephedrine may enhance corticosteroid metabolism, reducing the therapeutic effects.
Patients concurrently receiving an estrogen should be observed for excessive corticosteroid effects. Concurrent corticosteroid use with potassium-depleting diuretics may enhance hypokalemia. Concurrent corticosteroid use with cardiac glycosides may enhance the possibility of arrhythmias or digitalis toxicity associated with hypokalemia. Corticosteroids may enhance potassium depletion caused by amphotericin B. In all patients taking any of these drug therapy combinations, serum electrolyte determinations particularly potassium levels, should be closely monitored.

Concurrent corticosteroid use with coumarin-type anticoagulants may increase or decrease the anticoagulant effects, possibly requiring dosage adjustment.
Combined effects of noncorticosteroid anti-inflammatory drugs or alcohol with glucocorticoids may result in increased occurrence or severity of gastrointestinal ulceration.

Corticosteroid may decrease blood salicylate concentrations. Acetylsalicylic acid should be used cautiously in conjunction with corticosteroids in hypoprothrombinemia.
Dosage adjustments of an antidiabetic drug may be necessary when corticosteroids are given to diabetics.

Concomitant glucocorticoid therapy may inhibit the response to somatotropin.
Drug/Laboratory Test: Corticosteroids may affect the nitroblue tetrazolium test for bacterial infection and produce false-negative results.

Dexchlorpheniramine Maleate: Monoamine oxidase inhibitors (MAOIs) prolong and intensify the effects of antihistamines; severe hypotension may occur.
Concomitant use with alcohol, tricyclic antidepressants, barbiturates or other central nervous system depressants may potentiate the sedative effect of dexchlorpheniramine.
The action of oral anticoagulants may be inhibited by antihistamines.

4.6 Fertility, pregnancy, and lactation

Use of Betamethasone and Dexchlorpheniramine Maleate Oral Solution during pregnancy, in nursing mothers or in women of childbearing age requires that the possible benefits of the drug be

weighed against potential hazards to mother and fetus or infant. Infants born of mothers who have received substantial corticosteroid doses during pregnancy should be carefully observed for signs of hypoadrenalism

4.7 Effects on ability to drive and use machines.

Patients should be warned about engaging in activities requiring mental alertness such as driving a car or operating appliances, machinery, etc.

4.8 Undesirable effects

As the listed undesirable effects are based on spontaneous reports, assigning accurate frequency of occurrence for each is not possible.

Fluid and Electrolyte Disturbances:	Sodium retention, potassium loss, hypokalemic alkalosis; fluid retention; congestive heart failure in susceptible patients; hypertension.
Musculoskeletal:	Muscle weakness, corticosteroid myopathy, loss of muscle mass; aggravation of myasthenic symptoms in myasthenia gravis; osteoporosis; vertebral compression fractures; aseptic necrosis of femoral and humoral heads; pathologic fracture of long bones; tendon rupture.
Gastrointestinal:	Peptic ulcer with possible subsequent perforation and hemorrhage;pancreatitis, abdominal distention; ulcerative esophagitis.
Dermatologic:	Impaired wound healing, skin atrophy, thin fragile skin; petechiae and ecchymoses; facial erythema; increased sweating; suppressed reactions to skin tests; reactions eg, allergic dermatitis, urticaria, angioneurotic edema.
Neurologic:	Convulsions; increased intracranial pressure with papilledema(pseudotumor cerebri) usually after treatment; vertigo; headache.
Endocrine:	Menstrual irregularities; development of cushingoid state; suppression of fetal intrauterine or childhood growth; secondary adrenocortical and pituitary unresponsiveness, particularly in timesof stress, as in trauma, surgery or illness; decreased carbohydrate tolerance, manifestations of latent diabetes mellitus, increased requirements of insulin or oral hypoglycemic agents in diabetics.
Ophthalmic:	Posterior subcapsular cataracts; increased intraocular pressure,glaucoma; exophthalmos.
Metabolic:	Negative nitrogen balance due to protein catabolism.
Psychiatric:	Euphoria, mood swings; severe depression to frank psychoticmanifestations; personality changes; hyperirritability; insomnia.
Others:	Anaphylactoid or hypersensitivity and hypotensive or shock-likereactions.

4.9 Overdose

Betamethasone and Dexchlorpheniramine Maleate Oral Solution is a combination product and therefore the potential toxicity of each of its components must be considered. Toxicity from a single excessive dose of Betamethasone and Dexchlorpheniramine Maleate Oral Solution results primarily from the dexchlorpheniramine component. The estimated lethal dose of the antihistamine dexchlorpheniramine maleate is 2.5-5 mg/kg.

Symptoms: Overdosage reactions with conventional (sedating) antihistamines may vary from central nervous system depression (sedation, apnea, diminished mental alertness, cyanosis, arrhythmias, cardiovascular collapse) to stimulation (insomnia, hallucinations, tremors, convulsions) to death. Other signs and symptoms may include dizziness, tinnitus, ataxia, blurred vision and hypotension. In children, stimulation is dominant, as are atropine-like signs and symptoms (dry mouth, fixed, dilated pupils, flushing, fever and gastrointestinal symptoms). Hallucinations, incoordination and convulsions of the tonic-clonic type may occur. In adults, a cycle consisting of depression with drowsiness and coma, and an excitement phase leading to convulsions followed by depression may occur. A single excessive dose of betamethasone is not expected to produce acute symptoms. Except at the most extreme dosages, a few days of excessive glucocorticosteroid dosing is unlikely to produce harmful results except in patients at particular risk due to underlying conditions or on concomitant medications likely to interact adversely with betamethasone.

Treatment:In the event of overdosage, emergency treatment should be started immediately. Consultation with a poison control center is recommended. Consider standard measures to remove any unabsorbed drug eg, activated charcoal, gastric lavage. Dialysis has not been found helpful. There is no specific antidote. Measures to enhance excretion (urinary acidification, hemodialysis) are not recommended.

Treatment of the signs and symptoms of overdosage is symptomatic and supportive.

5. Pharmacological properties

5.1 Pharmacodynamic properties

Pharmacotherapeutic group: alkylamines used as systemic antihistamines

ATC code: R06AB52

Mode of Action
Betamethasone and Dexchlorpheniramine Maleate Syrup contains Betamethasone and exchlorpheniramine Maleate as active ingredients. Betamethasone and Dexchlorpheniramine Maleate Syrup works by reducing inflammation; blocking the histamine from the body.

5.2 Pharmacokinetic properties

Betamethasone

Absorption: Absorbed readily after oral administration. Systemic absorption occurs slowly following intra-articular injections.
Distribution: Removed rapidly from the blood and distributed to muscle, liver, skin, intestines, and kidneys. Betamethasone is bound weakly to plasma proteins (transcortin and albumin). Only the unbound portion is active. Adrenocorticoids are distributed into breast milk and through the placental barrier.
Metabolism: Metabolized in the liver to inactive glucuronide and sulfate metabolites.
Excretion: Inactive metabolites and small amounts of unmetabolized drug are excreted by the kidneys. Insignificant quantities of drug also are excreted in feces. Biological half-life of drug is 36 to 54 hours.

Dexchlorpheniramine

The absorption, distribution, metabolism and elimination of dexchlorpheniramine have not been specifically described. However, since dexchlorpheniramine is the primary active isomer of the racemic compound chlorpheniramine, the pharmacokinetics of dexchlorpheniramine are likely to be similar to that of chlorpheniramine.
Absorption: Dexchlorpheniramine is administered orally. H1-antagonists are generally well absorbed from the GI tract. The onset of action of immediate release formulations of chlorpheniramine is about 30-60 minutes. The Cmax of chlorpheniramine occurs in about 2 hours, the maximum therapeutic effect in about 6 hours, and the duration of action lasts between 4-8 hours.
Distribution Protein binding is approximately 72%. Chlorpheniramine is widely distributed in body tissues and fluids, and it crosses the placenta and is excreted into breast milk.
Metabolism: The metabolism of chlorpheniramine is extensive and rapid, first occurring in the gastric mucosa and then on firstpass through the liver, which may be saturable.
Excretion: N-dealkylation produces several metabolites, which are

excreted in the urine along with the parent compound. The half-life in healthy adults and children is 20-24 hours and 10- 13 hours, respectively. Excretion rates are dependent on the pH of urine and urinary flow, with the rate decreasing as the pH rises and urinary flow decreases.

Linearity/non-linearity:
Not Applicable.

Paediatric population:
Not Applicable.

5.3 Preclinical safety data

Carcinogenesis, Mutagenesis, Impairment of Fertility
Lifetime studies in animals to evaluate carcinogenic and mutagenic potential have not been conducted.

6. Pharmaceutical particulars

6.1 List of excipients

Xanthan Gum
Glycerine
Aspartame
Sodium Methyl Paraben
Sodium propyl Paraben
Sorbitol solution 70%
Essence Cherry No. 1 Liquid
De-mineral water
Propylene glycol

6.2 Incompatibilities

Not applicable

6.3 Shelf life

36 months

6.4 Special precautions for storage:

Store below 30 °C, protected from light.

6.5 Nature and contents of container

60ml Amber glass bottle with measuring cap pack, packed in printed and laminated carton.

6.6 Special precautions for disposal and other handling:
Any unused medicinal product or waste material should be disposed of in accordance with local requirements

7. Marketing authorization holder and manufacturing site addresses
Marketing authorization holder:
Win Pharma Ltd,5th Floor Y.T.L (Tigoni) Plaza, Ngara Road, P.O.Box 2482-00200, Nairobi, Kenya.
Manufacturing site address:
West Coast Pharmaceutical Works, Meldi Estate,B/S Meldi Malta Temple, near Gota railway crossing, AT & Post Gota, Ahmedabad, Gujrate State, India.

8. Marketing authorization number
CTD9613

9. Date of first registration
12/04/2023

10. Date of revision of the text:
17/09/2023

11. Dosimetry:
Not Applicable

12. Instructions for Preparation of Radiopharmaceuticals:
Not Applicable