

GSK

# Betnovate

# **Betamethasone 17-valerate**

Betamethasone valerate is called 'BETNOVATE' in all this information.

# **Qualitative and Quantitative Composition**

Betamethasone 17-valerate 0.122% w/w

# **Clinical Information**

## Directions

BETNOVATE is a potent topical corticosteroid indicated for adults, the elderly and children over 1 year of age, for the relief of inflammatory and pruritic manifestations of steroid-responsive dermatoses. These include:

- Atopic dermatitis (including infantile atopic dermatitis)
- Nummular dermatitis (discoid eczema)
- Nodular prurigo
- Psoriasis (excluding disseminated plaque psoriasis)
  Simple lichen chronicus (neurodermatitis) and lichen planus
- Seborrheic dermatitis
- Irritant or allergic contact dermatitis
- Discoid lupus erythematosus
- Adjunct to systemic steroid therapy for generalized erythroderma
- Reactions from insect bites
- Miliaria (heat rash)
  Hair Lotion: Dermatoses of the scalp that responds to steroids such as psoriasis, seborrhoea capitis, inflammation associated with severe dandruff.

## **Dosage and Administration**

### Pharmaceutical form:

Cream, Ointment, Lotion, Hair Option

## Adults, Seniors and Children Over 1 year

Creams are especially suitable for wet or exudative surfaces.

Ointments are especially appropriate for dry, lichenified or scaly lesions.

Lotions are especially appropriate for the treatment of hairy areas or when minimal application over a large area is required.

Apply a thin layer and rub in gently using only enough to cover the entire affected area once or twice a day for up to 4 weeks, until improvement, then reduce the frequency of application or switch to a less potent preparation. Allow adequate absorption time after each application, before applying an emollient.

In the most resistant lesions, such as in the thickened plaques of elbow and knee psoriasis, it is possible to potentiate the effect of *BETNOVATE*, if necessary, by occluding the treatment area with a polythene layer. Nocturnal occlusion is usually only adequate to achieve a satisfactory response in such lesions; Afterwards, improvement is usually maintained by regular application without occlusion.

If the condition worsens or does not improve in 2 – 4 weeks, treatment and diagnosis should be reevaluated.

Due to the flammable nature of **BETNOVATE** Lotion, patients should avoid smoking or being near an open flame during application and immediately after use.

## Atopic dermatitis (eczema)

Treatment with BETNOVATE should be gradually reduced once control is achieved, and should be continued with an emollient as maintenance therapy.

Rebound of pre-existing dermatoses may occur when BETNOVATE is abruptly discontinued.

#### **Recalcitrant dermatoses**

#### Patients who recur frequently

Once an acute episode has been effectively treated with a continuous course of topical corticosteroids, intermittent dosing (once daily, twice weekly, without occlusion) may be considered. This has been shown to be helpful in reducing the frequency of recurrences.

Application should be continued on all affected sites or on sites known to have potential for recurrence. This regimen should be combined with daily periodic use of emollients. Both the condition and the benefits and risks of continued treatment should be reassessed on a regular basis.

Hair lotion: A small amount of betamethasone valerate should be applied to the scalp at night and in the morning until improvement is noticed. It may be possible to maintain the improvement by applying once a day or less frequently.

## Children

BETNOVATE is contraindicated in children under one year of age.

Children are more likely to develop local and systemic side effects of topical corticosteroids and generally require shorter courses and less potent agents than adults.

Care should be taken when using **BETNOVATE**, ensuring that the amount applied is the minimum that provides therapeutic benefit.

# Elderly

Clinical studies have not identified differences in responses between elderly and younger patients. The increased frequency of decreased liver or kidney function in the elderly may delay elimination if systemic absorption occurs. Therefore, the minimum amount with the shortest duration that achieves the desired clinical benefit should be used.

## Renal / Hepatic Insufficiency

In the case of systemic absorption (when application is over a large surface area over a prolonged period), metabolism and elimination may be delayed, thus increasing the risk of systemic toxicity. Therefore, the minimum amount with the shortest duration that achieves the desired clinical benefit should be used.

# Contraindications

The following conditions should not be treated with BETNOVATE:

- Untreated skin infections
- Rosacea
- Acne vulgaris Itching without inflammation
- Perianal and genital pruritus
- Perioral dermatitis
- Hair Lotion: Scalp Infections

BETNOVATE is contraindicated in dermatoses in children under one year of age, including dermatitis.

## Warnings and Precautions

**BETNOVATE** should be used with caution in patients with a history of local hypersensitivity to corticosteroids or any of the excipients in the preparation. Local hypersensitivity reactions (see Adverse Reactions) may mimic the symptoms of the condition being treated.

In some individuals, manifestations of hypercortisolism (Cushing's syndrome) and reversible suppression of the hypothalamic-pituitary-adrenal (HPA) axis, causing glucocorticosteroid insufficiency, may occur as a result of increased systemic absorption of topical steroids. If any of the above are observed, tape off the drug gradually by reducing the frequency of application, or replacing it with a less potent corticosteroid. Abrupt discontinuation of treatment may cause glucocorticosteroid insufficiency (see ADVERSE REACTIONS).

Risk factors for increased systemic effects are:

- Potency and Formula of Topical Steroid
- Duration of exposure
- Application over a large surface area
  Use on areas of occluded skin (e.g., intertriginous areas or under occlusive dressings (in infants the diaper
- may act as an occlusive dressing)
- Increased hydration of the stratum corneum
  Use on areas of thin skin such as the face
- Use on open skin or in other conditions where the skin barrier may be altered
- Compared to adults, children and infants may absorb proportionately higher amounts of topical corticosteroids, and therefore may be more susceptible to systemic adverse effects. This is because
- children have an immature skin barrier and a higher surface area/body weight ratio compared to adults.

Visual disturbance has been reported in patients using systemic and/or topical corticosteroids. If a patient has blurred vision or other visual disturbances, consider evaluating possible causes which may include cataracts, glaucoma, or central serous chorioretinopathy.

#### Children

In infants and children under 12 years of age, long-term continuous treatment with topical corticosteroids should be avoided as far as possible, as adrenal suppression is more likely to occur.

## **Risk of Infection with Occlusion**

Bacterial infection is promoted under hot, moist conditions, within skin folds or caused by occlusive dressings. When using occlusive dressings, the skin should be cleaned before applying a clean dressing.

#### Use in Psoriasis

Topical corticosteroids should be used with caution in psoriasis, as rebound relapses, development of tolerance, risk of generalized pustular psoriasis, and development of local or systemic toxicity caused by alteration in skin barrier function have been reported in some cases. If used in psoriasis, it is important to carefully monitor the patient.

## **Application on the Face**

Prolonged application on the face is not recommended, as this area is more susceptible to atrophic changes.

Application on eyelids

If applied to the eyelids, caution should be taken to ensure that the preparation does not enter the eye, as repeated exposure can cause cataract and glaucoma.

## **Concomitant infection**

Appropriate antimicrobial therapy should be used whenever inflammatory lesions that have become infected are treated. Any spread of infection requires discontinuation of topical corticosteroid therapy and administration of appropriate antimicrobial therapy.

## **Chronic Leg Ulcers**

Topical corticosteroids are sometimes used to treat dermatitis surrounding chronic ulcers. However, this use may be associated with an increased occurrence of local hypersensitivity reactions, and with increased risk of local infection.

## **Risk of flammability**

The product contains paraffin. Instruct patients not to smoke or go near exposed flames because of the risk of severe burns. Fabrics (clothing, bedding, bandages, etc.) that have been in contact with this product burn more easily and pose a serious fire hazard. Washing clothes and bedding can reduce product buildup, but not completely remove it.

## Interactions

Coadministered drugs that can inhibit CYP3A4 (e.g., ritonavir, itraconazole) have been shown to inhibit corticosteroid metabolism, causing increased systemic exposure. The extent to which this interaction is clinically relevant depends on the dose and route of administration of corticosteroids, and the potency of the CYP3A4 inhibitor.

## **Pregnancy and Lactation**

There are limited data from the use of BETNOVATE in pregnant women.

Topical administration of corticosteroids in pregnant animals may cause abnormalities of fetal development (see Preclinical Information).



The relevance of this finding in relation to humans has not been established; however, administration of **BETNOVATE** during pregnancy should only be considered if the expected benefit to the mother outweighs the risk to the foetus. The minimum amount should be used for the minimum time.

The safety of topical corticosteroids during breastfeeding has not been established

It is not known whether topical administration of corticosteroids could result in sufficient systemic absorption to produce detectable amounts in human milk. Administration of **BETNOVATE** during lactation should only be considered if the expected benefit to the mother outweighs the risk to the infant.

If used during breastfeeding, **BETNOVATE** should not be applied to the breasts to prevent the infant from accidentally ingesting it.

There are no human data evaluating the effect of topical corticosteroids on fertility.

## Effects on the Ability to Drive and Operate Machinery

No studies have been conducted to investigate the effect of **BETNOVATE** on driving performance or ability to operate machinery. No negative effect on such activities is anticipated based on the adverse reaction profile of topical BETNOVATE.

## **Adverse Reactions**

Adverse drug reactions (ADRs) by MedDRA organ system class and frequency are listed below. Frequencies are defined as: very common ( $\geq$ 1/10), common ( $\geq$ 1/100 and <1/10), uncommon ( $\geq$ 1/1000 and <1/100), rare ( $\geq$ 1/10000 and <1/100) and very rare (<1/10000), including isolated reports.

## Post-marketing data

### Infections and Infestations

Very rare opportunistic infection

# Immune System Disorders

Very rare Local hypersensitivity

#### **Endocrine Disorders**

Very rareHypothalamic-pituitary-adrenal (HHA) axis suppression Cushinoid features (e.g., moonface, central obesity), delayed weight gain/growth retardation in children, osteoporosis, glaucoma, hyperglycemia/glycosuria, cataract, hypertension, weight gain/obesity, decreased endogenous cortisol levels, alopecia, trichorrhexis

## Skin and Subcutaneous Tissue Disorders

CommonPruritus, local burning skin/skin pain

Very rareAllergic contact dermatitis/dermatitis, erythema, rash, urticaria, pustular psoriasis, thinning skin\* / skin atrophy\*, skin wrinkles\*, dry skin\*, stretch marks\*, telangiectasias\*, pigmentary changes\*, hypertrichosis, exacerbation of underlying symptoms

#### General Disorders and Administration Site Conditions

Very rareApplication site irritation/pain

\*Skin characteristics secondary to the local and/or systemic effects of hypothalamic-pituitary-adrenal (HHA) axis suppression.

#### Overdose

## Symptoms and Signs

Topically applied betamethasone valerate can be absorbed in sufficient amounts to produce systemic effects. Acute overdose is very unlikely, however, in the case of overdose or chronic misuse, features of hypercortisolism may occur (see ADVERSE REACTIONS).

#### Treatment

In the event of an overdose, **BETNOVATE** should be gradually tapered by reducing the frequency of application, or by replacing it with a less potent corticosteroid, due to the risk of glucocorticosteroid insufficiency.

Further management should be as clinically indicated or as recommended by the national poison control center,

# Pharmacological properties

## Pharmacodynamics

#### ATC Code

D07AC Corticosteroids, potent (Group III)

#### Mechanism of Action

Topical corticosteroids act as anti-inflammatory agents through several mechanisms that inhibit late-phase allergic reactions, including decreased mast cell density, decreased chemotaxis and eosinophil activation, decreased cytokine production by lymphocytes, monocytes, mast cells, and eosinophils, and inhibition of arachidonic acid metabolism.

## Pharmacodynamic effects

Topical corticosteroids have anti-inflammatory, antipruritic, and vasoconstrictive properties.

# Pharmacokinetics

## Absorption

Topical corticosteroids can be absorbed systemically by intact healthy skin. The extent of percutaneous absorption of topical corticosteroids is determined by many factors, including the vehicle and integrity of the epidermal barrier. Occlusion, inflammation and/or other disease processes may also increase percutaneous absorption.

#### Distribution

The use of pharmacodynamic endpoints is necessary to assess systemic exposure of topical corticosteroids, due to the fact that circulating levels are well below the detection level.

#### Metabolism

Once absorbed through the skin, topical corticosteroids are metabolized by pharmacokinetic pathways similar to those of systemically administered corticosteroids. They are metabolized mainly in the liver.

## Elimination

Topical corticosteroids are excreted by the kidneys. In addition, some corticosteroids and their metabolites are also excreted in the bile.

# **Preclinical Information**

# **Carcinogenesis / Mutagenesis**

#### Carcinogenesis

Long-term animal studies have not been conducted to evaluate the carcinogenic potential of betamethasone valerate.

# Genotoxicity

No specific studies have been conducted to evaluate the genotoxic potential of betamethasone valerate

## Fertility

The effect of betamethasone valerate on fertility has not been evaluated in animals.

## Pregnancy

Subcutaneous administration of betamethasone valerate in mice or rats at doses of  $\ge 0.1 \text{ mg/kg/day}$  or in rabbits at doses of  $\ge 12 \text{ micrograms/kg/day}$  during pregnancy caused fetal abnormalities including cleft palate and intrauterine growth retardation.

# Pharmaceutical Information

# **List of Excipients**

#### Cream

Chlorocresol Macrogol Cetoestearil ether Cetostearyl alcohol White soft paraffin Liquid paraffin Sodium dihydrogen phosphate dihydrate Phosphoric acid Sodium hydroxide Purified water

For important information about some of these excipients see Warnings and Precautions.

## Ointment

Liquid paraffin White soft paraffin

#### Lotion

Methyl hydroxybenzoate Xanthan gum Cetostearyl alcohol Liquid paraffin Isopropyl alcohol Glycerol Macrogol Cetoestearil ether Sodium citrate Citric acid monohydrate Purified water

## Shelf Life

The expiry date is indicated on the packaging.

## Storage

Storage conditions are detailed on the packaging.

#### Lotion

Keep the container tightly closed when not in use. The contents are flammable. Keep away from fire, flame or heat. Do not leave **BETNOVATE** Lotion in direct sunlight.

## Hair lotion

Keep the container tightly closed when not in use. The contents are flammable. Keep away from fire, flame or heat. Do not leave **Betnovate** in direct sunlight.

# Nature and Content of the Container

#### Cream

Collapsible aluminum tubes internally coated with a lacquer based on epoxy resin, closed with a lid.

Opaque jars of high density polyethylene with screw-on lids of black urea formaldehyde, with a "steran faced wad".

# Ointment

Collapsible aluminum tubes internally coated with a lacquer based on epoxy resin, closed with a lid. Polypropylene/polyethylene pump device with a natural (translucent) polypropylene body. The nozzle is closed with a tongue of polyethylene acetyl. The pump is closed with an opaque polypropylene pressure cap, coated with an opaque shrinkable wrap.

## Lotion

Compressible polyethylene bottle with a polyethylene nozzle and a polystyrene or polyethylene lid or

Container Hostalen GF4750 and Remafin CEG 020 of High Density Polyethylene (HDPE) White, with a polyethylene nozzle and a polystyrene or polyethylene lid.

## Hair lotion

Squeezable polyethylene bottle with a polyethylene nozzle and a polystyrene or polyethylene cap

White high-density polyethylene (HDPE) container Hostalen GF4750 and Remafin CEG 020 white with polyethylene nozzle and a polystyrene or polyethylene lid.

Incompatibilities

No incompatibilities have been identified.

# Instructions for Use and Handling

There are no special requirements for the use or handling of this product. Not all presentations are available in all markets.



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