



BETA

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## 1. Product Name

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Beta, 0.1%w/w, cream or ointment.

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## 2. Qualitative and Quantitative Composition

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Betamethasone valerate cream 0.1% w/w  
Betamethasone valerate ointment 0.1% w/w

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## 3. Pharmaceutical Form

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BETA cream: A white, soft, homogeneous cream containing 0.1% w/w betamethasone as the valerate ester.

BETA ointment: A soft, smooth, translucent ointment containing 0.1% w/w betamethasone as the valerate ester.

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## 4. Clinical Particulars

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### 4.1 *Therapeutic indications*

BETA preparations are indicated for the treatment of:

- eczema, including atopic, infantile and discoid eczemas;
- prurigo nodularis;
- psoriasis (excluding widespread plaque psoriasis);
- neurodermatoses, including lichen simplex, lichen planus;
- seborrhoeic dermatitis;
- contact sensitivity reactions;
- discoid lupus erythematosus;
- insect bite reactions;
- prickly heat;

and they may be used as an adjunct to systemic steroid therapy in generalised erythroderma.

### 4.2 *Dose and method of administration*

#### **Dose**

#### ***Adults, elderly and children over 1 year***

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

BETA cream is especially appropriate for moist or weeping surfaces and BETA ointment for dry, lichenified or scaly lesions, but this is not invariably so.

In the more resistant lesions, such as the thickened plaques of psoriasis on the elbows and knees, the effect of BETA can be enhanced, if necessary, by occluding the treatment area with polythene film. Overnight occlusion only is usually adequate to bring about a satisfactory response in such lesions; thereafter, improvement can usually be maintained by regular application without occlusion.

If the condition worsens or does not improve within 2 to 4 weeks, treatment and diagnosis should be re-evaluated.

### ***Atopic dermatitis (eczema)***

Therapy with BETA preparations should be gradually discontinued once control is achieved and an emollient continued as maintenance therapy.

Rebound of pre-existing dermatoses can occur with abrupt discontinuation of BETA preparations.

### ***Recalcitrant dermatoses***

#### **Patients who frequently relapse**

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

Application should be continued to all previously affected sites or to known sites of potential relapse. This regime should be combined with routine daily use of emollients. The condition and the benefits and risks of continued treatment must be re-evaluated on a regular basis.

### ***Special populations***

#### **Elderly**

Clinical studies have not identified differences in responses between the elderly and younger patients. The greater frequency of decreased hepatic or renal function in the elderly may delay elimination if systemic absorption occurs. Therefore the minimum quantity should be used for the shortest duration to achieve the desired clinical benefit.

#### **Renal/hepatic impairment**

In case of systemic absorption (when application is over a large surface area for a prolonged period) metabolism and elimination may be delayed therefore increasing the risk of systemic toxicity. Therefore, the minimum quantity should be used for the shortest duration to achieve the desired clinical benefit.

#### **Children aged 1 year and over**

BETA preparations are contraindicated in children under one year of age (see section 4.3).

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

Care should be taken when using BETA preparations to ensure the amount applied is the minimum that provides therapeutic benefit.

## **4.3 Contraindications**

Hypersensitivity to betamethasone valerate or to any of the excipients listed in section 6.1.

The following conditions should not be treated with BETA preparations:

- Untreated cutaneous infections

- Rosacea
- Acne vulgaris
- Pruritus without inflammation
- Perianal and genital pruritus
- Hypersensitivity to any component of BETA preparations
- Perioral dermatitis.

BETA preparations are contraindicated in dermatoses in infants under one year of age, including dermatitis.

#### **4.4 Special warnings and precautions for use**

##### **Hypersensitivity**

BETA preparations should not be used in patients with a history of local hypersensitivity to corticosteroids or to any of the excipients in the preparation. Local hypersensitivity reactions (see section 4.8) may resemble symptoms of the condition under treatment.

##### **Reversible hypothalamic-pituitary-adrenal (HPA) axis suppression**

Manifestations of hypercortisolism (Cushing's syndrome) and reversible hypothalamic-pituitary-adrenal (HPA) axis suppression, leading to glucocorticosteroid insufficiency, can occur in some individuals as a result of increased systemic absorption of topical steroids. If either of the above are observed, withdraw the drug gradually by reducing the frequency of application, or by substituting a less potent corticosteroid. Abrupt withdrawal of treatment may result in glucocorticosteroid insufficiency (see section 4.8).

Risk factors for increased systemic effects are:

- Potency and formulation of topical steroid
- Duration of exposure
- Application to a large surface area
- Use on occluded areas of skin e.g. on intertriginous areas or under occlusive dressings (in infants the nappy may act as an occlusive dressing)
- Increasing hydration of the stratum corneum
- Use on thin skin areas such as the face
- Use on broken skin or other conditions where the skin barrier may be impaired
- In comparison with adults, children may absorb proportionally larger amounts of topical corticosteroids and thus be more susceptible to systemic adverse effects. This is because children have an immature skin barrier and a greater surface area to body weight ratio compared with adults.

##### **Use in children**

In infants and children under 12 years of age, long-term continuous topical corticosteroid therapy should be avoided where possible, as adrenal suppression can occur.

##### **Infection risk with occlusion**

Bacterial infection is encouraged by the warm, moist conditions within skin folds or caused by occlusive dressings. When using occlusive dressings, the skin should be cleansed before a fresh dressing is applied.

##### **Use in psoriasis**

Topical corticosteroids should be used with caution in psoriasis as rebound relapses, development of tolerances, risk of generalised pustular psoriasis and development of local or systemic toxicity due to impaired barrier function of the skin have been reported in some cases. If used in psoriasis careful patient supervision is important.

## **Application to the face**

Prolonged application to the face is undesirable as this area is more susceptible to atrophic changes.

## **Application to the eyelids**

If applied to the eyelids, care is needed to ensure that the preparation does not enter the eye, as cataract and glaucoma might result from repeated exposure.

## **Concomitant infection**

Appropriate antimicrobial therapy should be used whenever treating inflammatory lesions which have become infected. Any spread of infection requires withdrawal of topical corticosteroid therapy and administration of appropriate antimicrobial therapy.

## **Chronic leg ulcers**

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

## **Visual disturbance**

Visual disturbance may be reported with systemic and topical corticosteroid use. If a patient presents with symptoms such as blurred vision or other visual disturbances, the patient should be considered for referral to an ophthalmologist for evaluation of possible causes which may include cataract, glaucoma or rare diseases such as central serous chorioretinopathy (CSCR) which have been reported after use of systemic and topical corticosteroids.

## **4.5 Interaction with other medicines and other forms of interaction**

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

## **4.6 Fertility, pregnancy and lactation**

### **Pregnancy**

There are limited data from the use of betamethasone valerate in pregnant women. Topical administration of corticosteroids to pregnant animals can cause abnormalities of foetal development.

The relevance of this finding to humans has not been established; however, administration of BETA preparations during pregnancy should only be considered if the expected benefit to the mother outweighs the risk to the foetus. The minimum quantity should be used for the minimum duration.

### **Breast-feeding**

The safe use of topical corticosteroids during lactation has not been established.

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

If used during lactation BETA preparations should not be applied to the breasts to avoid accidental ingestion by the infant.

### **Fertility**

There are no data in humans to evaluate the effect of topical corticosteroids on fertility.

## **4.7 Effects on ability to drive and use machines**

There have been no studies to investigate the effect of betamethasone valerate on driving performance or the ability to operate machinery. A detrimental effect on such activities would not be anticipated from the adverse effects profile of topical betamethasone valerate.

## **4.8 Undesirable effects**

Adverse events are listed below by MedDRA system organ class and frequency. Frequencies are defined as: very common ( $\geq 1/10$ ), common ( $\geq 1/100$  and  $< 1/10$ ), uncommon ( $\geq 1/1000$  and  $< 1/100$ ), rare ( $\geq 1/10,000$  and  $< 1/1000$ ) and very rare ( $< 1/10,000$ ) including isolated reports.

### **Post-marketing data**

#### ***Infections and infestations***

Very rare: Opportunistic infection.

#### ***Immune system disorders***

Very rare: Local hypersensitivity.

If signs of hypersensitivity appear, application should stop immediately.

#### ***Endocrine disorders***

Very rare: Hypothalamic-pituitary-adrenal (HPA) axis suppression, Cushingoid features (e.g. moon face, central obesity), delayed weight gain/growth retardation in children, osteoporosis, glaucoma, hyperglycaemia/glucosuria, cataract, hypertension, increased weight/obesity, decreased endogenous cortisol levels, alopecia, trichorrhexis.

#### ***Skin and subcutaneous tissue disorders***

Common: Pruritus, local skin burning / skin pain.

Very rare: Allergic contact dermatitis/dermatitis, erythema, rash, urticaria, pustular psoriasis, skin thinning\*/ skin atrophy\*, skin wrinkling\*, skin dryness\*, striae\*, telangiectasias\*, pigmentation changes\*, hypertrichosis, exacerbation of underlying symptoms.

#### ***General disorders and administration site conditions***

Very rare: Application site irritation / pain.

\* Skin features secondary to local and / or systemic effects of HPA axis suppression.

### **Reporting of suspected adverse reactions**

Reporting suspected adverse reactions after authorisation of the medicine is important. It allows continued monitoring of the benefit/risk balance of the medicine. Healthcare professionals are asked to report any suspected adverse reactions <https://nzphvc.otago.ac.nz/reporting/>.

## **4.9 Overdose**

### **Symptoms and signs**

Topically applied betamethasone valerate may be absorbed in sufficient amounts to produce systemic effects. Acute overdosage is unlikely to occur, however, in the case of chronic overdosage or misuse, the features of hypercortisolism may occur (see section 4.8).

### **Treatment**

In the event of overdose, BETA preparations should be withdrawn gradually by reducing the frequency of application, or by substituting a less potent corticosteroid because of the risk of glucocorticosteroid insufficiency.

For further advice on management of overdose please contact the National Poisons Information Centre (0800 POISON or 0800 764 766).

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## 5. Pharmacological Properties

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### 5.1 *Pharmacodynamic properties*

Pharmacotherapeutic group: corticosteroids, potent (group III), ATC code: D07AC01

#### **Mechanism of action**

Betamethasone valerate is an active topical corticosteroid which produces a rapid response in those inflammatory dermatoses that are normally responsive to topical corticosteroid therapy, and is often effective in the less responsive conditions such as psoriasis.

#### **Pharmacodynamic effects**

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

### 5.2 *Pharmacokinetic properties*

#### **Absorption**

As with other topical corticosteroids, sufficient betamethasone valerate may be absorbed to give systemic effects if applied under an occlusive dressing or when the skin is broken.

#### **Distribution**

The use of pharmacodynamic endpoints for assessing the systemic exposure of topical corticosteroids is necessary because circulating levels are well below the level of detection.

#### **Biotransformation**

Once absorbed through the skin, topical corticosteroids are handled through pharmacokinetic pathways similar to systemically administered corticosteroids. They are metabolised, primarily in the liver.

#### **Elimination**

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

### 5.3 *Pre-clinical safety data*

Subcutaneous administration of betamethasone valerate to mice or rats at doses  $\geq 0.1$  mg/kg/day or rabbits at doses  $\geq 12$  micrograms/kg/day during pregnancy produced foetal abnormalities including cleft palate and intrauterine growth retardation.

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

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## 6. Pharmaceutical Particulars

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### 6.1 *List of excipients*

Excipients in BETA Cream:

- white soft paraffin
  - cetostearyl alcohol
  - liquid paraffin
  - cetareth 20
  - monobasic sodium phosphate
  - sodium hydroxide
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- purified water
- chlorocresol as preservative.

Excipients in BETA Ointment:

- white soft paraffin
- white beeswax
- propylene glycol
- stearyl alcohol.

BETA Ointment and BETA Cream do not contain lanolin or parabens.

## **6.2 Incompatibilities**

Not applicable.

## **6.3 Shelf life**

2 years.

## **6.4 Special precautions for storage**

Store at or below 25°C.

## **6.5 Nature and contents of container**

BETA Cream and BETA Ointment: Tubes of 30 g, 50 g or 100 g.

Not all pack sizes may be marketed.

## **6.6 Special precautions for disposal**

Not applicable.

# **7. Medicines Schedule**

Prescription Medicine

# **8. Sponsor Details**

Mylan New Zealand Ltd  
 PO Box 11183  
 Ellerslie  
 AUCKLAND  
 Telephone 09-579-2792

# **9. Date of First Approval**

13 July 2000

# **10. Date of Revision of the Text**

16 January 2019

Section changed	Summary of new information
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5.1	Updated ATC code and added pharmacodynamic effect information
5.2	Added pharmacokinetic information
5.3	Included pre-clinical information