1. PRODUCT NAME

BETNOVATE betamethasone valerate 0.122% w/w lotion

2. QUALITATIVE AND QUANTITATIVE COMPOSITION

Betamethasone valerate 0.122% w/w (equivalent to betamethasone 0.1% w/w)

For full list of excipients, see section 6.1 List of excipients.

3. PHARMACEUTICAL FORM

Lotion

BETNOVATE Lotion, a white, translucent, aqueous fluid.

4. CLINICAL PARTICULARS

4.1 Therapeutic Indications

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

- Atopic dermatitis (including infantile atopic dermatitis)
- Nummular dermatitis (discoid eczema)
- Prurigo nodularis
- Psoriasis (excluding widespread plaque psoriasis)
- Lichen simplex chronicus (neurodermatitis) and lichen planus
- Seborrhoeic dermatitis
- Irritant or allergic contact dermatitis
- Discoid lupus erythematosus
- Insect bite reactions
- Miliaria (prickly heat); and
- Adjunct to systemic steroid therapy in generalised erythroderma.

4.2 Dose and method of administration

Dose

Adults, Elderly and Children over 1 year

BETNOVATE Lotion is especially appropriate for treatment of hairy areas or when a minimal application to a large area is required.

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 application or change the treatment to a less potent preparation. Allow adequate time for absorption after each application before applying an emollient.
In the more resistant lesions, such as the thickened plaques of psoriasis on the elbows and knees, the effect of BETNOVATE Lotion 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 2-4 weeks, treatment and diagnosis should be re-evaluated.

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)**

Therapy with BETNOVATE Lotion 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 BETNOVATE Lotion.

**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.

**Children aged 1 year and over**

BETNOVATE Lotion is contraindicated in children under one year of age (see section 4.3 Contraindications).

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 BETNOVATE Lotion to ensure the amount applied is the minimum that provides therapeutic benefit.

**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.

4.3 Contraindications
The following conditions should not be treated with BETNOVATE Lotion:

- Untreated cutaneous infections
- Rosacea
- Acne vulgaris
- Pruritus without inflammation
- Perianal and genital pruritus
- Hypersensitivity to the preparations.
- Perioral dermatitis

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

4.4 Special warnings and precautions for use

Hypersensitivity

BETNOVATE 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 Undesirable effects) 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 Undesirable effects).

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

**Paediatric population**

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.

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

Co-administered drugs 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 BETNOVATE Lotion 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 BETNOVATE Lotion during lactation should only be considered if the expected benefit to the mother outweighs the risk to the infant.

If used during lactation BETNOVATE Lotion should not be applied to the beasts 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 BETNOVATE Lotion 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 BETNOVATE Lotion.

4.8  Undesirable effects

Adverse drug reactions are listed below by MedDRA system organ class and by frequency. Frequencies are defined as: very common (≥1/10), common (≥1/100 and <1/10), uncommon (≥1/1000 and <1/100), rare (≥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

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 via: [https://nzphvc.otago.ac.nz/reporting/](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 Undesirable effects).

**Treatment**

In the event of overdose, BETNOVATE Lotion 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 advice on the management of overdose please contact the National Poisons Centre on 0800 POISON (0800 764 766).

5. PHARMACOLOGICAL PROPERTIES

The least potent corticosteroid which will control the disease should be selected.

5.1 Pharmacodynamic properties

ATC code: D07AC Corticosteroids, potent (group III)
Chemical Structure
Betamethasone valerate

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 Preclinical safety data
Subcutaneous administration of betamethasone valerate to mice or rats at doses
≥0.1 mg/kg/day or rabbits at doses ≥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.

6. PHARMACEUTICAL PARTICULARS

6.1 List of excipients

BETNOVATE Lotion also contains:
- methyl hydroxybenzoate
- xanthan gum
- cetostearyl alcohol
- liquid paraffin
- isopropyl alcohol
- glycerol
- cetomacrogol 1000
- sodium citrate
- citric acid monohydrate
- purified water

BETNOVATE Lotion does not contain lanolin.

BETNOVATE Lotion contains parabens.

6.2 Incompatibilities

No incompatibilities have been identified.

6.3 Shelf life

3 years

In-use shelf life

Discard 3 months after opening.

6.4 Special precautions for storage

Store below 25°C, out of direct sunlight.

Keep container tightly closed when not in use. Contents are flammable. Keep away from fire, flame or heat.

6.5 Nature and contents of container

BETNOVATE Lotion is supplied in white opaque 50 mL HDPE bottle.
6.6 Special precautions for disposal and other handling

There are no special requirements for handling of this product. Any unused medicine should be disposed of in accordance with local requirements.

There are no special requirements for disposal.

7. MEDICINE SCHEDULE

Prescription Medicine

8. SPONSOR

GlaxoSmithKline NZ Limited
Private Bag 106600
Downtown Auckland
New Zealand

Phone: (09) 367 2900
Facsimile: (09) 367 2910

9. DATE OF FIRST APPROVAL

Date of publication in the New Zealand Gazette of consent to distribute the medicine: 27 January 1964

10 DATE OF REVISION OF THE TEXT

22 March 2018

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