

**PRODUCT MONOGRAPH**

**VALISONE-G\* CREAM  
VALISONE-G\* OINTMENT**

**(Betamethasone 17-valerate and Gentamicin sulfate)**

**Topical Corticosteroid and Antibiotic**

**Valeo Pharma Inc.  
Kirkland, Quebec**

**Date of Preparation:  
July 4, 1969  
Date of Latest Revision:  
January 19, 2005**

**Control No.: 6849**

**\*Reg. T.M. under licence of Schering Canada Inc.**

**NAME OF DRUG**

VALISONE-G\*

**THERAPEUTIC OR PHARMACOLOGICAL CLASSIFICATION**

VALISONE-G is a combination of betamethasone as 17-valerate, an active ester of betamethasone for the topical treatment of allergic and inflammatory dermatoses and of the wide-spectrum antibiotic gentamicin (as gentamicin sulfate).

**STRUCTURAL FORMULA AND CHEMISTRY**

**Gentamicin Sulfate**

Gentamicin is derived from Micromonospora purpurea of the Actinomycetes group, and is a heat-stable white powder that is soluble in water.

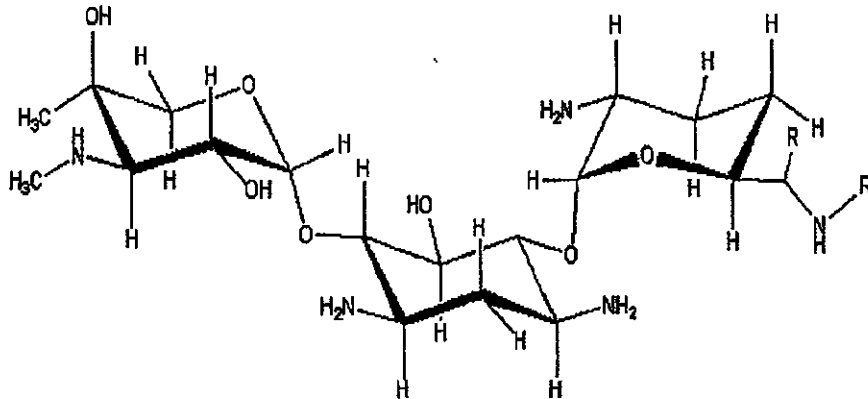
Gentamicin is a mixture of three components, namely,

gentamicin C<sub>1</sub> R=R'=CH<sub>3</sub>

gentamicin C<sub>2</sub> R=CH<sub>3</sub>; R'=H

gentamicin C<sub>1a</sub> R=R'=H

It has the following structural formula:

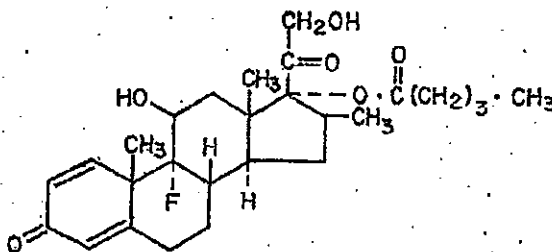


### Betamethasone Valerate

Betamethasone 17-valerate is:

9 $\alpha$ -fluoro-11 $\beta$ ,17, 21-trihydroxy-16 $\beta$ -methylpregna-1,4-diene-3, 20-dione 17-valerate

It has the following structural formula:



### ACTION

VALISONE-G provides the combined anti-inflammatory, anti-allergic, and anti-pruritic actions of betamethasone 17-valerate with the antibacterial topical effect of gentamicin.

### INDICATIONS

VALISONE-G is indicated in the topical management of secondarily infected allergic or inflammatory dermatoses responsive to corticosteroid therapy, such as contact dermatitis, seborrheic dermatitis, neurodermatitis, intertrigo, exfoliative dermatitis, stasis dermatitis and psoriasis.

It is also indicated for the treatment of the aforementioned conditions whenever the possibility of secondary infection is present by gram-positive or gram-negative bacteria including Streptococci, Staphylococcus, and species of Pseudomonas, Aerobacter, Escherichia, and Klebsiella, which are susceptible organisms to the topical action of gentamicin.

The VALISONE-G ointment may be preferred for the treatment of dry, scaling and fissured lesions.

## **CONTRAINDICATIONS**

VALISONE-G is contraindicated in most viral diseases including chicken pox, herpes simplex and vaccinia, and in tuberculosis of the skin.

Application in or near the eyes must be avoided.

Valisone-G is contraindicated in those patients with a history of sensitivity reactions to any of its components.

## **WARNINGS AND PRECAUTIONS**

Use of topical antibiotics occasionally allows overgrowth of nonsusceptible organisms, including fungi, yeasts or viruses. If this occurs or if irritation, sensitization or superinfection develops, treatment with Valisone-G should be discontinued and appropriate therapy instituted.

Corticosteroids and gentamicin are known to be absorbed percutaneously in patients under prolonged treatment, with extensive body surface treatment or particularly in those using the occlusive dressing technique on large areas of the body. In such cases, it is recommended that kidney function studies such as B.U.N. be carried out prior to treatment and regularly throughout the course of the treatment.

Causal factors should be sought and eliminated whenever possible and the sensitivity of an infecting organism to gentamicin should be verified.

Percutaneous absorption of the corticosteroid can produce systemic effects such as adrenal suppression, moon facies, striae, suppression of growth in children. When longterm topical treatment under occlusive dressings is necessary, small dosages, rotation of sites and intermittent therapy should be considered.

Systemic absorption of topical corticosteroids will be increased if extensive body surface areas are treated or if the occlusive technique is used. Suitable precautions should be taken under these conditions or when long-term use is anticipated, particularly in infants and children.

Systemic absorption of topically applied gentamicin may be increased if extensive body surface areas are treated, especially over prolonged time periods or in the presence of dermal disruption. In these cases, the undesirable effects, which occur following systemic use of gentamicin, may potentially occur. Cautious use is recommended under these conditions, particularly in infants and children.

Pediatric patients may demonstrate greater susceptibility to topical corticosteroid-induced HPA axis suppression and Cushing's syndrome than mature patients because of a larger skin surface area to body weight ratio.

Use of topical corticosteroids in children should be limited to the least amount compatible with an effective therapeutic regimen. Chronic corticosteroid therapy may interfere with growth and development of children.

HPA axis suppression, Cushing's syndrome, linear growth retardation, delayed weight gain, and intracranial hypertension have been reported in children receiving topical corticosteroids. Manifestations of adrenal suppression in children include low plasma cortisol levels and absence of response to ACTH stimulation. Manifestations of intracranial hypertension include a bulging fontanelle, headaches and bilateral papilledema.

Patients should be advised to inform subsequent physicians of the prior use of corticosteroids.

While no systemic effects have been observed following the topical application of gentamicin, toxic systemic concentrations can cause permanent impairment of vestibular function in the presence of renal insufficiency or existing 8th cranial nerve damage.

Caution should be exercised if gentamicin is used in individuals who are known to be sensitive to topically applied antibacterials.

The possibility of sensitivity reactions to any of the product's components should be kept in mind.

Valisone-G Cream or Valisone-G Ointment are not for ophthalmic use.

**Pregnancy and Lactation:** The use of any drug during pregnancy and the lactation period or in women of childbearing age requires that the potential benefits of the drug be weighed against the possible hazards to the fetus or infant. Although topical steroids have not been reported to have had an adverse effect on the fetus, the safety of their use in pregnant patients has not been definitely established.

Accordingly, they should not be used extensively or for prolonged periods of time in pregnant patients.

Since it is not known whether topical administration of corticosteroids can result in sufficient systemic absorption to produce detectable quantities in breast milk, a decision should be made to discontinue nursing or to discontinue the drug, taking into account the importance of the drug to the mother.

**Children:** Any of the side effects that have been reported following systemic use of corticosteroids, including adrenal suppression, may also occur with topical corticosteroids, especially in infants and children.

### **ADVERSE REACTIONS**

The following local adverse reactions have been reported rarely with the use of topical corticosteroids: burning, itching, irritation, dryness, folliculitis, hypertrichosis, acneiform eruptions, hypopigmentation, perioral dermatitis and allergic contact dermatitis.

The following may occur more frequently with occlusive dressings: maceration of the skin, secondary infection, skin atrophy, striae, millaria.

In patients with dermatoses treated with gentamicin, mild irritation (erythema and pruritus) that did not usually require discontinuance of treatment, has been reported in a small percentage of cases. There was no evidence of irritation or sensitization, however, in any of these patients patch tested subsequently with gentamicin on normal skin.

Possible photosensitization has been reported in several patients but could not be elicited in these patients by reapplication of gentamicin followed by exposure to u.v. radiation.

### **OVERDOSE: SYMPTOMS AND TREATMENT**

Excessive or prolonged use of topical corticosteroids can suppress pituitary-adrenal function, resulting in secondary adrenal insufficiency, and produce manifestations of hypercorticism, including Cushing's disease.

A single overdose of gentamicin would not be expected to produce symptoms.

Excessive prolonged use of topical gentamicin may lead to overgrowth of lesions by fungi or non-susceptible bacteria.

Treatment of accidental ingestion: there is no known antidote but gastric lavage should be performed.

Appropriate symptomatic treatment is indicated. Acute hypercorticoid symptoms are usually reversible. Treat electrolyte imbalance, if necessary. In case of chronic toxicity, slow withdrawal of corticosteroids is advised.

Appropriate antifungal or antibacterial therapy is indicated if overgrowth occurs.

### **PHARMACOLOGY**

#### **Betamethosone 17-valerate**

Clinical trials and extensive experience now available have established the effective activity of betamethasone 17-valerate in the suppression of inflammatory reactions, prompt and prolonged control of pruritus, erythema, swelling, and infiltration, which are common manifestations of allergic conditions. Reduction of scratching decreases the likelihood of exacerbating the lesions or producing secondary infection. Clinical trials by numerous dermatologists who have used betamethasone 17-valerate in various localized and generalized corticosteroid-responsive diseases, indicated a high incidence of good to excellent results, either by inunction or under occlusive dressings.

### Gentamicin sulfate

This wide spectrum antibiotic was developed in the Research Laboratories of Schering Corporation. It has proven to be very effective in the topical treatment of primary and secondary bacterial infections of the skin. In vitro, antibacterial activity of gentamicin shows this antibiotic to be bactericidal against a wide variety of gram-positive and gram-negative bacteria. At concentrations of 4 mcg/ml or less, gentamicin inhibited 95% of the strains of Staphylococcus aureus and 70 to 90% of the strains of Escherichia coli and Aerobacter aerogenes.

Bacteria sensitive to gentamicin include Streptococci (group A beta hemolytic, alpha hemolytic) Staphylococcus aureus (coagulase positive, coagulase negative, and some penicillinase-producing strains), and the gram-negative bacteria Pseudomonas aeruginosa, Aerobacter aerogenes, Escherichia coli, Proteus vulgaris, and Klebsiella pneumoniae.

Clinically, gentamicin has proven to be effective in the treatment of impetigo contagiosa, superficial folliculitis, ecthyma, furunculosis, sycosis barbae, and pyoderma gangrenosum; also secondary skin infections such as eczematoid dermatitis, pustular acne, pustular psoriasis, infected seborrheic dermatitis, infected contact dermatitis (including poison ivy), infected excoriations, and bacterial superinfections of fungal or viral infections. Results of cutaneous patch tests in 100 patients demonstrated that the antibiotic was not a primary irritant.

### DOSAGE AND ADMINISTRATION

A thin film of Valisone-G Cream or Valisone-G Ointment should be applied to cover completely the affected area two or three times daily.

Refractory lesions of psoriasis and deep-seated dermatoses which have been secondarily infected may respond better to topical corticosteroids and antibiotics when used with the hydration technique or occlusive dressing described below.

#### Occlusive Dressing Technique

1. Apply a thick layer of medication over the entire surface of the lesion under a light gauze dressing and cover it with a pliable, transparent, impermeable, plastic material well beyond the edges of the treated area.

2. Seal the edges to the normal skin by adhesive tape or other means.
3. Leave the dressing in place one to three days and repeat the procedure three or four times as needed.

With this method of treatment, marked improvement often is seen in a few days. However, this technique requires closer supervision of the patient since occasionally millary eruptions of folliculitis develop in the skin under an occlusive dressing, requiring removal of the plastic cover and/or discontinuance of this method of treatment.

### AVAILABILITY

#### VALISONE-G Cream:

Each g of cream contains: betamethasone valerate USP equivalent to 1.0 mg (0.1%) betamethasone alcohol and gentamicin sulfate USP equivalent to 1.0 mg (0.1%) of gentamicin base.

The microdispersion of these active ingredients in a greaseless, odorless, non-staining, washable and cosmetically-pleasing cream insures effective contact with the skin and rapid onset of action of the steroid and the antibiotic.

Non-medicinal ingredients: cetostearyl alcohol, chlorocresol, mineral oil, monobasic sodium phosphate, phosphoric acid, polyethylene glycol 1000 monocetyl ether, purified water, sodium hydroxide and white petrolatum.

Tubes of 15 and 30 g.

#### VALISONE-G Ointment:

Each g of ointment contains: betamethasone valerate USP equivalent to 1.0 mg (0.1%) betamethasone alcohol and gentamicin sulfate USP equivalent to 1.0 mg (0.1%) of gentamicin base.

The microdispersion of these active ingredients in an odorless, nonstaining ointment base insures effective contact with the skin and rapid onset of action of the steroid and the antibiotic.

Non-medicinal ingredients: white petrolatum USP.

Tubes of 15 and 30 g.

### **STORAGE**

Store at 15 to 30°C.