

# Summary of Product Characteristics

## 1 NAME OF THE MEDICINAL PRODUCT

Betnesol-N 0.1% w/v, 3500 IU/ml Eye, Ear and Nasal Drops, solution

## 2 QUALITATIVE AND QUANTITATIVE COMPOSITION

Contains 0.1% w/v betamethasone sodium phosphate and 3500 IU/ml Neomycin sulphate.

### Excipients with known effect

Benzalkonium chloride – 0.01% w/v

Disodium Phosphate Anhydrous – 0.2% w/v

Sodium Dihydrogen Phosphate Dihydrate – 0.03% w/v

For the full list of excipients, see section 6.1.

## 3 PHARMACEUTICAL FORM

Eye, ear and nasal drops, solution (ear, eye and nasal drops)

A colourless to pale yellow solution.

## 4 CLINICAL PARTICULARS

### 4.1 Therapeutic Indications

#### Eye

Short-term treatment of steroid responsive inflammatory conditions of the eye when prophylactic antibiotic treatment is also required, after excluding the presence of viral and fungal disease.

#### Ear

Otitis externa or other steroid responsive conditions where prophylactic antibiotic treatment is also required.

#### Nose

Steroid responsive inflammatory conditions where prophylactic antibiotic treatment is also required.

### 4.2 Posology and method of administration

The frequency of dosing depends on the clinical response. If there is no clinical response within 7 days of treatment, the drops should be discontinued.

Treatment should be the lowest effective dose for the shortest possible time. Normally, Betnesol-N Drops should not be given for more than 7 days, unless under expert supervision. After more prolonged treatment (over 6 to 8 weeks), the drops should be withdrawn slowly to avoid relapse.

#### Eyes

1 or 2 drops applied to each affected eye up to six times daily depending on clinical response.

#### Ears

2 or 3 drops instilled into the ear three or four times daily.

#### Nose

2 or 3 drops instilled into each nostril two or three times daily.

### 4.3 Contraindications

Viral, fungal, tuberculous or purulent conditions of the eye. Fungal infections of the nose or ear. Use is contraindicated if glaucoma is present or herpetic keratitis (e.g. dendritic ulcer) is considered a possibility. Use of topical steroids in the latter condition can lead to an extension of the ulcer and marked visual deterioration.

Otitis externa should not be treated when the eardrum is perforated because of the risk of ototoxicity.

Corticosteroids should not be used in patients with a perforated tympanic membrane.

Hypersensitivity to any component of the preparation.

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

Topical corticosteroids should never be given for an undiagnosed red eye as inappropriate use is potentially blinding. Treatment with corticosteroid/antibiotic combinations should not be continued for more than 7 days in the absence of any clinical improvement, since prolonged use may lead to occult extension of infection due to the masking effect of the steroid. Prolonged use may also lead to skin sensitisation and the emergence of resistant organisms. Prolonged use may lead to the risk of adrenal suppression in infants.

Ophthalmological treatment with corticosteroid preparations should not be repeated or prolonged without regular review to exclude raised intraocular pressure, cataract formation or unsuspected infections.

Aminoglycoside antibiotics may cause irreversible, partial or total deafness when given systemically or when applied topically to open wounds or damaged skin. This effect is dose related and is enhanced by renal or hepatic impairment. Although this effect has not been reported following topical ocular use, the possibility should be considered when high dose topical treatment is given to small children or infants.

There have been observed cases of an increased risk of ototoxicity with aminoglycosides administered to patients with mitochondrial mutations, particularly the m.1555A>G mutation, including cases where the patient's aminoglycoside serum levels were within the recommended range. Some cases were associated with a maternal history of deafness and/or mitochondrial mutation. While no cases were identified with neomycin, based on a shared mechanism of action there is the potential for a similar effect with neomycin. These mitochondrial mutations are rare, and the penetrance of this observed effect is unknown.

Nasal administration of corticosteroids is not advised if an untreated nasal infection is present or if the patient has pulmonary tuberculosis or following nasal surgery (until healing has occurred).

Systemic effects of nasal corticosteroids may occur, particularly at high doses prescribed for prolonged periods. These effects are much less likely to occur than with oral corticosteroids and may vary in individual patients and between different corticosteroid preparations. Potential systemic effects may include Cushing's syndrome, Cushingoid features, adrenal suppression, growth retardation in children and adolescents, cataract, glaucoma and more rarely, a range of psychological or behavioural effects including psychomotor hyperactivity, sleep disorders, anxiety, depression or aggression (particularly in children).

Betnesol-N Drops contain benzalkonium chloride as a preservative and therefore, should not be used as eye drops to treat patients who wear soft contact lenses.

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.

#### Excipients with specified warnings

This medicine contains 0.01% w/v benzalkonium chloride in each dose. From the limited data available, there is no difference in the adverse event profile in children compared to adults. Generally, however, eyes in children show a stronger reaction for a given stimulus than the adult eye. Irritation may have an effect on treatment adherence in children. Benzalkonium chloride has been reported to cause eye irritation, symptoms of dry eyes and may affect the tear film and corneal surface. Should be used with caution in dry eye patients and in patients where the cornea may be compromised. Patients should be monitored in case of prolonged use. Long-term use may cause oedema of the nasal mucosa.

This medicine contains 0.23% w/v phosphates in each dose. In patients with suffering from severe damage to the cornea please reference section 4.8 Undesirable effects.

#### **4.5 Interaction with other medicinal products and other forms of interactions**

No interaction studies have been performed.

Betnesol Drops contain benzalkonium chloride as a preservative and therefore, should not be used to treat patients who wear soft contact lenses. Co-treatment with CYP3A inhibitors, including cobicistat-containing products, is expected to increase the risk of systemic side-effects. The combination should be avoided unless the benefit outweighs the increased risk of systemic corticosteroid side-effects, in which case patients should be monitored for systemic corticosteroid side-effects.

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

Safety for use in pregnancy and lactation has not been established. There is inadequate evidence of safety in human pregnancy. Topical administration of corticosteroids to pregnant animals can cause abnormalities of foetal development including cleft palate and intrauterine growth retardation. There may therefore be a very small risk of such effects in the human foetus.

There is a risk of foetal ototoxicity if aminoglycoside antibiotic preparations are administered during pregnancy.

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

May cause transient blurring of vision on instillation. Patients should be warned not to drive or operate hazardous machinery unless vision is clear.

#### **4.8 Undesirable effects**

Hypersensitivity reactions, usually of the delayed type, may occur leading to irritation, burning, stinging, itching and dermatitis.

Topical corticosteroid use may result in corneal ulceration increased intraocular pressure leading to optic nerve damage, reduced visual acuity and visual field defects.

Intensive or prolonged use of topical corticosteroids may lead to formation of posterior subcapsular cataracts.

In those diseases causing thinning of the cornea or sclera, corticosteroid therapy may result in thinning of the globe leading to perforation.

Mydriasis, ptosis, epithelial punctate keratitis and glaucoma have also been reported following ophthalmic use of corticosteroids.

Cases of corneal calcification have been reported very rarely in association with the use of phosphate containing eye drops in some patients with significantly damaged corneas.

Following nasal administration, the most common effects are nasal irritation and dryness, although sneezing, headache, lightheadedness, urticaria, nausea, epistaxis, rebound congestion, bronchial asthma, perforation of the nasal septum, ulceration of the nasal septum, anosmia, parosmia and disturbance to sense of taste have also been reported.

Systemic effects of nasal corticosteroids may occur, particularly at high doses prescribed for prolonged periods. Growth retardation has been reported in children receiving nasal corticosteroids at licensed doses.

It is recommended that the height of children receiving prolonged treatment with nasal corticosteroids is regularly monitored. If growth is slowed, therapy should be reviewed with the aim of reducing the dose of nasal corticosteroids, if possible, to the lowest dose at which effective control of symptoms is maintained. In addition, consideration should also be given to referring the patient to a paediatric specialist.

Vision, blurred (see also section 4.4)

Reporting suspected adverse reactions after authorisation of the medicinal product is important. It allows continued monitoring of the benefit/risk balance of the medicinal product. Healthcare professionals are asked to report any suspected adverse reactions via HPRA Pharmacovigilance, Website: [www.hpra.ie](http://www.hpra.ie).

#### **4.9 Overdose**

Long-term intensive topical use may lead to systemic effects.

Oral ingestion of the contents of one bottle (up to 10ml) is unlikely to lead to any serious adverse effects.

Treatment with higher than recommended doses may result in clinically significant adrenal suppression. If there is evidence of higher than recommended doses being used then additional systemic corticosteroid cover should be considered during periods of stress or elective surgery.

### **5 PHARMACOLOGICAL PROPERTIES**

#### **5.1 Pharmacodynamic properties**

ATC Code: S03C A

Betamethasone has topical corticosteroid activity. The presence of neomycin should prevent the development of bacterial infection.

#### **5.2 Pharmacokinetic properties**

Not applicable as the drops are applied topically.

#### **5.3 Preclinical safety data**

None stated.

### **6 PHARMACEUTICAL PARTICULARS**

#### **6.1 List of excipients**

Benzalkonium Chloride (anhydrous equivalent)  
Disodium Edetate  
Macrogol 300  
Sodium Formate  
Sodium Sulphate, Anhydrous  
Disodium Phosphate Anhydrous  
Sodium Dihydrogen Phosphate Dihydrate  
Sodium Hydroxide (for pH adjustment)  
Phosphoric Acid (for pH adjustment)  
Water for Injections

#### **6.2 Incompatibilities**

Not applicable.

#### **6.3 Shelf life**

Unopened: 18 months

Once opened: Discard 28 days after first opening

#### **6.4 Special precautions for storage**

Do not store above 25°C. Do not refrigerate or freeze. Keep the bottle in the outer carton to protect from light.

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

5 ml and 10 ml opaque bottles with nozzle insert moulded in natural low density polyethylene closed with a tamper evident high density polyethylene cap.

Not all pack sizes may be marketed.

### **6.6 Special precautions for disposal of a used medicinal product or waste materials derived from such medicinal product and other handling of the product**

No special requirements.

## **7 MARKETING AUTHORISATION HOLDER**

RPH Pharmaceuticals AB  
Box 603  
101 32 Stockholm  
136 50 Jordbro  
Sweden

## **8 MARKETING AUTHORISATION NUMBER**

PA1638/002/001

## **9 DATE OF FIRST AUTHORISATION/RENEWAL OF THE AUTHORISATION**

Date of first authorisation: 13 August 1993

Date of last renewal: 13 August 2008

## **10 DATE OF REVISION OF THE TEXT**

January 2021