The format of this leaflet was determined by the Ministry of Health and its content was checked and approved in January 2015 and was updated according to the guidelines of the ministry of health in February 2019

Bactroban Nasal

1. Name of the Medicinal Product

Bactroban Nasal

2. QUALITATIVE AND QUANTITATIVE COMPOSITION

Each gram of nasal ointment contains mupirocin calcium equivalent to 20 mg mupirocin (2% w/w mupirocin free acid).

3. PHARMACEUTICAL FORM

White soft paraffin based nasal ointment containing a glycerin ester.
Off-white smooth ointment.

4. CLINICAL PARTICULARS

4.1 Therapeutic indications

The elimination of nasal carriage of staphylococci, including methicillin resistant S*taphylococcus aureus* (MRSA).

4.2 Posology and method of administration

Dosage: Adults (including the elderly/renally impaired/hepatically impaired) and children:

Apply a small quantity of Mupirocin nasal ointment, about the size of a match head (approximately 30 mg of ointment) to each nostril twice a day for at least 5 days.

Method of Administration:

Use a cotton tipped applicator. After application, the nostrils should be closed by pressing the sides of the nose together several times.

Nasal carriage should normally be clear within three to five days of treatment.

Dosage should not exceed ten days.

Do not mix with other preparations as there is a risk of dilution, resulting in a reduction in the antibacterial activity and potential loss of stability of the mupirocin in the ointment.

4.3 Contraindications

Hypersensitivity to the active substance or to any of the excipients listed in section 6.1.

4.4 Special warnings and precautions for use

Should a possible sensitisation reaction or severe local irritation occur with the use of Bactroban Nasal Ointment, treatment should be discontinued, the product should be wiped away and appropriate therapy instituted.

As with other antibacterial products, prolonged use may result in overgrowth of non-susceptible organisms.

Pseudomembranous colitis has been reported with the use of antibiotics and may range in severity from mild to life-threatening. Therefore, it is important to consider its diagnosis in patients who develop diarrhoea during or after antibiotic use. Although this is less likely to occur with topically applied mupirocin, if prolonged or significant diarrhoea occurs or the patient experiences abdominal cramps, treatment should be discontinued immediately and the patient investigated further.

This mupirocin nasal ointment formulation is not suitable for ophthalmic use.

Avoid contact with the eyes. If contaminated, the eyes should be thoroughly irrigated with water until the ointment residues have been removed.

4.5 Interaction with other medicinal products and other forms of interaction

No drug interactions have been identified

4.6 Fertility, pregnancy and lactation

Pregnancy
Reproduction studies on Bactroban in animals have revealed no evidence of harm to the foetus (see section 5.3). As there is no clinical experience on its use during pregnancy, Bactroban should only be used in pregnancy when the potential benefits outweigh the possible risks of treatment.

Breast-feeding
There is no information on the excretion of Bactroban in milk.

Fertility
There are no data on the effects of mupirocin on human fertility.
Studies in rats showed no effects on fertility (see section 5.3).

4.7 Effects on ability to drive and use machines

No adverse effects on the ability to drive or operate machinery have been identified.

4.8 Undesirable effects

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

Uncommon adverse reactions were determined from pooled safety data from a clinical trial population of 422 treated patients encompassing 12 clinical studies. Very rare adverse reactions were primarily determined from post-marketing experience data and therefore refer to reporting rate rather than true frequency.

Immune system disorders

Very rare: Cutaneous hypersensitivity reactions. Systemic allergic reactions including anaphylaxis, generalised rash, urticaria and angioedema.

Respiratory, thoracic and mediastinal disorders

Uncommon: Nasal mucosa reactions.

Reporting of suspected adverse reactions

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. Any suspected adverse events should be reported to the Ministry of Health according to the National Regulation by using an online form (http://forms.gov.il/globaldata/getsequence/getsequence.aspx?formType=AdversEffectMedic@moh. gov.il). Additionally, you should also report to GSK Israel (il.safety@gsk.com).

4.9 Overdose

Symptoms and signs

There is currently limited experience with overdosage of mupirocin.

Treatment

There is no specific treatment for an overdose of mupirocin. In the event of overdose, the patient should be treated supportively with appropriate monitoring as necessary. Further management should be as clinically indicated or as recommended by the national poisons centre, where available.

5. PHARMACOLOGICAL PROPERTIES

5.1 Pharmacodynamic properties

Pharmacotherapeutic group: Antibiotics and chemotherapeutics for dermatological use.

ATC code: D06AX09

Mode of Action

Mupirocin is a novel antibiotic produced through fermentation by *Pseudomonas fluorescens*. Mupirocin inhibits isoleucyl transfer-RNA synthetase, thereby arresting bacterial protein synthesis.

Mupirocin has bacteriostatic properties at minimum inhibitory concentrations and bactericidal properties at the higher concentrations reached when applied locally.

Mechanism of Resistance

Low-level resistance in staphylococci is thought to result from point mutations within the usual staphylococcal chromosomal gene (ileS) for the target isoleucyl tRNA synthetase enzyme. High-level resistance in staphylococci has been shown to be due to a distinct, plasmid encoded isoleucyl tRNA synthetase enzyme.

Intrinsic resistance in Gram negative organisms such as the *Enterobacteriaceae* could be due to poor penetration of the outer membrane of the Gram-negative bacterial cell wall.

Due to its particular mode of action, and its unique chemical structure, mupirocin does not show any cross-resistance with other clinically available antibiotics.

Microbiological Susceptibility

The prevalence of acquired resistance may vary geographically and with time for selected species, and local information on resistance is desirable, particularly when treating severe infections. As necessary, expert advice should be sought when the local prevalence of resistance is such that the utility of the agent in at least some types of infection is questionable.

Commonly susceptible species:
*Staphylococcus aureus**
Streptococcus spp.
Species for which acquired resistance may be a problem:
Methicillin-Resistant-*Staphylococcus aureus* (MRSA)
Methicillin-resistant coagulase-negative *Staphylococci* (MRCoNS)
Inherently resistant organisms:
Corynebacterium spp.
Micrococcus spp.

*Clinical efficacy has been demonstrated for susceptible isolates in approved clinical indications.

Mupirocin susceptibility (MIC) breakpoints for *Staphylococcus aureus:*

Susceptible: less than or equal to 1mg/L
Resistant: greater than 256 mg/L

5.2 Pharmacokinetic properties

Studies have shown that following topical application of mupirocin there is very little systemic absorption of drug-related material. To mimic possible enhanced systemic penetration of mupirocin by application to damaged skin or a vascular site such as the mucous membrane, intravenous studies have been performed. Mupirocin was rapidly eliminated from the plasma by metabolism to monic acid, which in turn was excreted mainly in the urine.

5.3 Preclinical safety data

Pre-clinical effects were seen only at exposures which are extremely unlikely to cause concern for humans under normal conditions of clinical use. Mutagenicity studies revealed no risks to man.

6. PHARMACEUTICAL PARTICULARS

6.1 List of excipients

White soft paraffin
Softisan 649

6.2 Incompatibilities

None known.

6.3 Shelf-life

The expiry date of the product is indicated on the label and packaging.

6.4 Special precautions for storage

Store below 25°C.

6.5 Nature and contents of container

Lacquered aluminium tube fitted with a nozzle and screw cap containing 3 g ointment.

6.6 Special precautions for disposal and other handling

Any product remaining at the end of treatment should be discarded.

Wash your hands after application.

Administrative Data

7. MANUFACTURER

Glaxo Operations (UK) Ltd., Barnard Castle, UK.

8. LICENSE HOLDER AND IMPORTER

GlaxoSmithKline (Israel) Ltd., 25 Basel St., Petach Tikva.

9. LICENSE NUMBER

050-85-26431

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