

1. NAME OF THE VETERINARY MEDICINAL PRODUCT

Betafuse 1 mg/g + 5 mg/g gel for dogs

2. QUALITATIVE AND QUANTITATIVE COMPOSITION

Each g contains:

Active substances:

Betamethasone (as betamethasone valerate) 1 mg
Fusidic acid (as fusidic acid hemihydrate) 5 mg

Excipients:

Qualitative composition of excipients and other constituents	Quantitative composition if that information is essential for proper administration of the veterinary medicinal product
Sodium methyl parahydroxybenzoate (E219)	3.1 mg
Sodium propyl parahydroxybenzoate	0.337 mg
Carbomer	
Polysorbate 80	
Dimeticone	
Hydrochloric acid (for pH adjustment)	
Sodium hydroxide (for pH adjustment)	
Purified water	

An off-white to white gel.

3. CLINICAL INFORMATION

3.1 Target species

Dogs.

3.2 Indications for use for each target species

The veterinary medicinal product is indicated for the treatment of acute surface pyoderma, such as acute moist dermatitis ('hot spots') and intertrigo (skin fold dermatitis), caused by Gram-positive bacteria sensitive to fusidic acid.

3.3 Contraindications

Do not use in cases of deep pyoderma.

Do not use in cases of pyotraumatic furunculosis and pyotraumatic folliculitis with 'satellite' lesions of papules or pustules.

Do not use where fungal or viral infection, or demodicosis is present.

Do not apply to the eye.

Do not use over large surface areas or for prolonged treatment.

Do not use in cases of impetigo or acne.
Do not use in cases of unbalanced or untreated Cushing's syndrome or diabetes mellitus.
Do not use in cases of pancreatitis.
Do not use in cases of gastrointestinal ulcers.
Do not use in cases of hypersensitivity to the active substances or to any of the excipients.
Do not use in the case of resistance to fusidic acid.
See section 3.7.

3.4 Special warnings

Pyoderma is often secondary in nature. The underlying cause should be identified and treated.

3.5 Special precautions for use

Special precautions for safe use in the target species:

Official, national and regional antimicrobial policies should be taken into account when the product is used.

It is recommended that use of the product should be based on bacteriological sampling and susceptibility testing. If this is not possible, therapy should be based on epidemiological information about susceptibility of the target bacteria. Use of the product deviating from the instructions given in the SPC may increase the prevalence of bacteria resistant to fusidic acid.

Use of the product in association with occlusive bandages or dressings should be avoided.

Betamethasone valerate can be absorbed percutaneously and may cause temporary suppression of adrenal function.

In dogs with treated and stabilised Cushing's syndrome, only use the product after careful consideration of the benefit risk balance by the responsible veterinary surgeon.

Avoid eye contact. In case of accidental contact, rinse thoroughly with water.

The dog should be prevented from licking treated lesions and so ingesting the product.

Where there is a risk of self-trauma or a risk of accidental transfer to the eye, for example, application of the product on the forelimb, preventative measures such as the use of a protective collar should be considered.

Special precautions to be taken by the person administering the veterinary medicinal product to animals:

People with known hypersensitivity to the active ingredients or to any of the excipients should avoid contact with the veterinary medicinal product.

Corticosteroids may produce irreversible effects in the skin; they can be absorbed and may have harmful effects, especially with frequent and extensive contact or in pregnancy. Pregnant women should take special care to avoid accidental exposure.

Personal protective clothing consisting of single-use impermeable gloves must be worn when applying this product to animals.

Wash hands after having applied the product.

Care should be taken to avoid contact with treated areas of the animal, for the duration of the treatment period.

Care should be taken to avoid accidental ingestion by a child. In the case of accidental ingestion, seek medical advice immediately and show the package leaflet or the label to the physician.

Special precautions for the protection of the environment:

Not applicable.

3.6 Adverse events

Dogs:

Undetermined frequency	Systemic disorder (e.g. suppression of adrenal function ¹ , thinning of the epidermis ¹ , delayed healing ¹). Pigmentation disorder (e.g. depigmentation of the skin ²). Hypersensitivity ³ .
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¹ May be triggered by prolonged and intensive use of topical corticosteroid preparations or treatment of a large cutaneous surface (>10%).

² May be caused by locally applied steroids.

³ If develops, discontinue use.

Reporting adverse events is important. It allows continuous safety monitoring of a veterinary medicinal product. Reports should be sent, preferably via a veterinarian, to either the marketing authorisation holder or its local representative or the national competent authority via the national reporting system. See the package leaflet for respective contact details.

3.7 Use during pregnancy, lactation or lay

Pregnancy and lactation:

Laboratory studies have demonstrated that topical application of betamethasone in pregnant females may lead to malformations in neonates. Small amounts of betamethasone can pass the blood-milk-barrier.

The safety of the veterinary medicinal product has not been established during pregnancy and lactation.

The use is not recommended during pregnancy and lactation.

3.8 Interaction with other medicinal products and other forms of interaction

Concurrent treatment with steroids and NSAIDs may increase the risk for the development of gastrointestinal ulcers.

3.9 Administration routes and dosage

Cutaneous use.

First, the hairs covering the lesions should be gently clipped. The affected area should then be thoroughly cleaned with an antiseptic wash before daily application of the gel. The amount applied should cover the affected area in a thin layer. Apply approximately 0.5 cm length of gel per 8 cm² of lesion, twice daily, for a minimum period of 5 days. Treatment should continue for 48 hours after the lesion has resolved. The treatment period should not exceed 7 days. If there is no response within three days, or the condition deteriorates, the diagnosis should be re-evaluated.

3.10 Symptoms of overdose (and where applicable, emergency procedures, antidotes).

No other symptoms than those mentioned in section 3.6 are expected.

3.11 Special restrictions for use and special conditions for use, including restrictions on the use of antimicrobial and antiparasitic veterinary medicinal products in order to limit the risk of development of resistance.

Not applicable.

3.12 Withdrawal period

Not applicable.

4. PHARMACOLOGICAL INFORMATION

4.1 ATCvet code: QD07 CC01

4.2 Pharmacodynamics

Betamethasone valerate is a potent synthetic corticosteroid (dexamethasone-analogue) with anti-inflammatory and anti-pruritic activity when applied topically as well as mild mineralocorticoid properties.

Fusidic acid hemihydrate has a steroidal structure but does not possess any steroid-like effects. It belongs to the class of antibiotics called Fusidanes. Fusidic acid hemihydrate acts by prohibiting the protein synthesis of bacteria when it binds to elongation factor G (required for translocation on the bacterial ribosome after peptide bond formation during protein synthesis).

Its action is largely bacteriostatic, but at high concentrations (2 to 32-fold higher than the MIC) the effect may be bactericidal. Fusidic acid hemihydrate has activity against Gram-positive bacteria, namely *Staphylococcus* spp. (particularly *S. pseudintermedius*) including penicillinase producing species. It is also active against streptococci.

Pathogenic bacteria	Fusidic acid Sensitive / Resistant	Fusidic acid MIC
Gram-positive bacteria - <i>Staphylococcus pseudintermedius</i> - <i>Streptococcus</i> spp. - <i>Corynebacteria</i> spp.	Sensitive Sensitive Sensitive	MIC ₉₀ ≅ 0.25-4 µg/ml MIC ₉₀ ≅ 8-16 µg/ml MIC ₉₀ ≅ 0.04 – 12.5 µg/ml
Gram-negative bacteria - <i>Pseudomonas</i> spp. - <i>E.coli</i>	Resistant Resistant	>128 µg/ml >128 µg/ml

Data based on studies conducted mainly in Europe but also in North America between 2002 and 2011.

Two major mechanisms of resistance to fusidic acid hemihydrate have been reported in *S. aureus* – the alteration of the drug target site which is due to chromosomal mutations in FusA (encoding elongation factor EF-G) or FusE encoding ribosome protein L6, and the protection of the drug target site by FusB family proteins, including fusB, fusC, and fusD. The fusB determinant originally was found on the plasmid in *S. aureus* but has also been found on a transposon-like element or in a staphylococcal pathogenicity island.

No cross-resistance between fusidic acid hemihydrate and other antibiotics that are in clinical use has been identified.

4.3 Pharmacokinetics

In vitro data obtained from a study on dog skin indicate that 17 % of the applied dose of betamethasone and 2.5 % of the applied dose of fusidic acid hemihydrate are absorbed over 48 hours after the administration of the product to the skin.

Betamethasone valerate is absorbed after topical application. Absorption after administration to inflamed skin is likely to be greater. Following systemic absorption betamethasone can cross the blood-brain barrier, the blood-placenta barrier and, in small amounts, may pass into the milk of lactating animals.

5. PHARMACEUTICAL PARTICULARS

5.1 Major incompatibilities

Not applicable.

5.2 Shelf life

Shelf life of the veterinary medicinal product as packaged for sale: 2 years.

Shelf life after first opening the immediate packaging: 8 weeks.

5.3. Special precautions for storage

This veterinary medicinal product does not require any special storage conditions.

5.4 Nature and composition of immediate packaging

White polyethylene coated aluminium tubes closed with a polypropylene cap in an outer carton.

Pack sizes:

Carton with one tube containing 15 g gel.

Carton with one tube containing 30 g gel.

Not all pack sizes may be marketed.

5.5 Special precautions for the disposal of unused veterinary medicinal product or waste materials derived from the use of such products

Medicines should not be disposed of via wastewater or household waste.

Use take-back schemes for the disposal of any unused veterinary medicinal product or waste materials derived thereof in accordance with local requirements and with any national collection systems applicable to the veterinary medicinal product concerned.

6. NAME OF THE MARKETING AUTHORISATION HOLDER

Norbrook Laboratories (Ireland) Limited

7. MARKETING AUTHORISATION NUMBER(S)

VPA22664/129/001

8. DATE OF FIRST AUTHORISATION

16/09/2016

9. DATE OF THE LAST REVISION OF THE SUMMARY OF THE PRODUCT CHARACTERISTICS

23/12/2024

10. CLASSIFICATION OF VETERINARY MEDICINAL PRODUCTS

Veterinary medicinal product subject to prescription

Detailed information on this veterinary medicinal product is available in the [Union Product Database \(https://medicines.health.europa.eu/veterinary\)](https://medicines.health.europa.eu/veterinary).