

## Topical

GenOne is a gentamicin sulfate with betamethasone valerate topical spray that is indicated for the treatment in dogs of infected superficial lesions for bacteria sensitive to gentamicin. Each milliliter contains gentamicin sulfate equivalent to 0.57 mg gentamicin base, and betamethasone valerate equivalent to 0.284 mg betamethasone. Gentamicin, a broad-spectrum antibiotic, is a highly effective topical treatment for bacterial infections of the skin. Betamethasone valerate, a synthetic glucocorticoid, has been shown to provide anti-inflammatory and antipruritic activity in the topical management of corticosteroid-responsive infected superficial lesions in dogs. For topical use in dogs only. Prescription.

ITEM#	DESCRIPTION	SIZE
501007	GenOne Spray	60 mL
502007	GenOne Spray	120 mL
503007	GenOne Spray	240 mL





## (Gentamicin sulfate with Betamethasone valerate)

### Topical Spray

**Caution: Federal law restricts this drug to use by or on the order of a licensed veterinarian.**

**For Topical Use in Dogs Only**

ANADA #200-188, Approved by FDA.

**Description:** Each mL contains: gentamicin sulfate equivalent to 0.57 mg gentamicin base, betamethasone valerate equivalent to 0.284 mg betamethasone, 163 mg isopropyl alcohol, propylene glycol, methylparaben and propylparaben as preservatives, purified water q.s. Hydrochloric acid may be added to adjust pH.

**Chemistry:** Gentamicin is a mixture of aminoglycoside antibiotics derived from the fermentation of *Micromonospora purpurea*. Gentamicin sulfate is a mixture of sulfate salts of the antibiotics produced in this fermentation. The salts are weakly acidic and freely soluble in water.

Gentamicin sulfate contains not less than 500 micrograms of gentamicin base per milligram.

Betamethasone valerate is a synthetic glucocorticoid.

**Pharmacology:** Gentamicin, a broad-spectrum antibiotic, is a highly effective topical treatment for bacterial infections of the skin. *In vitro*, gentamicin is bactericidal against a wide variety of gram-positive and gram-negative bacteria isolated from domestic animals.<sup>1,2</sup> Specifically, gentamicin is active against the following organisms isolated from canine skin: *Alcaligenes* sp., *Citrobacter* sp., *Klebsiella* sp., *Pseudomonas aeruginosa*, indole-positive and negative *Proteus* sp., *Escherichia coli*, *Enterobacter* sp., *Staphylococcus* sp., and *Streptococcus* sp.

Betamethasone valerate emerged from intensive research as the most promising of some 50 newly synthesized corticosteroids in the experimental model described by McKenzie<sup>3</sup>, et al. This human bioassay technique has been found reliable for evaluating the vasoconstrictor properties of new topical corticosteroids and is useful in predicting clinical efficacy.

Betamethasone valerate in veterinary medicine has been shown to provide anti-inflammatory and antipruritic activity in the topical management of corticosteroid-responsive infected superficial lesions in dogs.

**Warning:** Clinical and experimental data have demonstrated that corticosteroids administered orally or parenterally to animals may induce the first stage of parturition when administered during the last trimester of pregnancy and may precipitate premature parturition followed by dystocia, fetal death, retained placenta, and metritis.

Additionally, corticosteroids administered to dogs, rabbits and rodents during pregnancy have produced cleft palate. Other congenital anomalies including deformed forelegs, phocomelia, and anasarca have been reported in offspring of dogs which received corticosteroids during pregnancy.

**Indications:** For the treatment of infected superficial lesions in dogs caused by bacteria sensitive to gentamicin.

**Contraindications:** If hypersensitivity to any of the components occurs, treatment with this product should be discontinued and appropriate therapy instituted.

**Dosage and Administration:** Prior to treatment, remove excessive hair and clean the lesion and adjacent area. Hold bottle upright 3 to 6 inches from the lesion and depress the sprayer head twice. Administer 2 to 4 times daily for 7 days.

Each depression of the sprayer head delivers 0.7 mL of GenOne™ Spray.

**Toxicity:** GenOne™ Spray was well tolerated in an abraded skin study in dogs. No treatment-related toxicological changes in the skin were observed.

Systemic effects directly related to treatment

were confined to histological changes in the adrenals, liver, and kidney and to organ-to-body weight ratios of adrenals. All were dose related, were typical for or not unexpected with corticosteroid therapy, and were considered reversible with cessation of treatment.

**Side Effects:** Side effects such as SAP and SGPT enzyme elevations, weight loss, anorexia, polydipsia, and polyuria have occurred following parenteral or systemic use of synthetic corticosteroids in dogs. Vomiting and diarrhea (occasionally bloody) have been observed in dogs.

Cushing's syndrome in dogs has been reported in association with prolonged or repeated steroid therapy.

### References:

1. Hennessy PW, et al. *In vitro* activity of gentamicin against bacteria isolated from domestic animals. *Veterinary Medicine/Small Animal Clinician*. November 1971; 1118-1122
2. Bachmann HJ, et al. Comparative *in vitro* activity of gentamicin and other antibiotics against bacteria isolated from clinical samples from dogs, cats, horses and cattle. *Veterinary Medicine/Small Animal Clinician*. October 1975; 1218-1222
3. McKenzie, HW., Atkinson, RM.: Topical activities of betamethasone esters in man. *Arch Derm*. 1964; 19:741-746.

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