

Enrofloxacin; neomycin

SCHEDULING STATUS: S4

CURRENTLY COMPOUNDED FORMULATIONS:

Active ingredient(s)	Injectable	Oral equine paste	Oral carnivore paste	Orals for exotics	Oral solution/suspension	Topical treatment	Shampoo	Capsules/Tablets	Oral powder
Enrofloxacin hydrochloride Neomycin sulfate									✓

REGISTERED PRODUCT/ TRADE NAME: No veterinary-labelled products available.

PHARMACOLOGICAL CLASSIFICATION: Antibiotics. Enrofloxacin: fluoroquinolone; neomycin: aminoglycoside

PHARMACOLOGICAL ACTION: Enrofloxacin is a bactericidal agent. The bactericidal activity of enrofloxacin is concentration dependent, with susceptible bacteria cell death occurring within 20 – 30 minutes of exposure. Enrofloxacin has demonstrated a significant post-antibiotic effect for both gram negative and -positive bacteria and is active in both stationary and growth phases of bacterial replication. Its mechanism of action is believed to act by inhibiting bacterial DNA-gyrase (a type-II topoisomerase), thereby preventing DNA supercoiling and DNA synthesis.^[1]

Neomycin has a mechanism of action and spectrum of activity (primarily gram-negative aerobes) similar to the other aminoglycosides, but in comparison to either gentamicin or amikacin, it is significantly less effective against several species of gram-negative organisms, including strains of Klebsiella, E. coli, and Pseudomonas. However, most strains of neomycin-resistant bacteria of these species remain susceptible to amikacin.^[1]

INDICATIONS: For the treatment of bacterial infections caused by colibacillosis, fowl cholera, infectious coryza and salmonellosis in broiler chickens, growing pullets, broiler and layer breeder birds.^[3]

DOSAGE AND DIRECTIONS FOR USE:

POULTRY:

For use in water only.^[2]

10 mg/kg daily for 5 consecutive days. Give a double dose on the first day.

WARNINGS/ PRECAUTIONS/ CONTRA-INDICATIONS:

- Withdrawal period eggs: 9 days. Withdrawal period meat: 5 days.^[2]

REFERENCES:

1. Plumb's Veterinary Drug Handbook, Sixth edition, by Donald C. Plumb
2. V-Tech Feeds Products summary of residue and stability 20170928
3. MIMS IDR 2015/16 volume 13