

## Ticarcillin Clavulanate 2.5% Ketoconazole 2% Otic Topical Therapy for Otitis Externa in Dogs & Cats

### Overview

Topically therapy is key to the successful resolution of otitis externa. Unless the ear canal epithelium has been eroded or ulcerated extensively, systemic antimicrobials are unlikely to achieve therapeutic concentrations within the fluid and waxy exudates of the external canals in which the infectious bacterial or fungal organisms are harbored.

### Mechanism of Action

Carboxypenicillins exhibit activity against gram-negative organisms (including *Pseudomonas* spp) because of their ability to penetrate the gram-negative cell membrane. Ticarcillin is the carboxycillin for which topical use has been most commonly reported in the treatment of canine *Pseudomonas* otitis.

Azole antifungals (ketoconazole, fluconazole, miconazole) all share a common mode of action against fungi: disruption of cell wall ergosterol biosynthesis via P450 enzyme inhibition. Veterinary topical preparations of Ketoconazole are commonly employed against *Malassezia* otitis and are non-toxic to the inner ear.

### Dosage and Administration

- \* Apply topically to the ear canal twice a day for a minimum of 7-14 days.
- \* Take care to deliver a sufficient volume of the topical agent into the ear canal.  
(Large breeds dogs should receive 1ml per application)
- \* Therapy should be accompanied by consistent cleansing and flushing at home

### How Supplied:

Ticarcillin Clavulanate 2.5% Ketoconazole 2% Otic Suspension 60 ML

Ticarcillin Clavulanate 2.5% Ketoconazole 2% Otic Ointment 4 GM