

Indiana Medicaid Therapeutics Committee
Therapeutic Class Review Summary

Therapeutic Class:

Otic Antibiotics

Overview:

Otic antibiotics are generally used to treat otitis externa, a bacterial infection involving the external auditory canal. The newer otic preparations are also indicated for otitis media in children with tympanostomy tubes.

All agents discussed in this class are used to treat otitis externa. The products containing various combinations of neomycin, polymyxin and hydrocortisone have been used for many years. These products have comparable efficacy. Other treatment options include the fluoroquinolones (ofloxacin and ciprofloxacin), which are broad-spectrum antibiotics with a favorable safety profile. Ciprofloxacin in combination with hydrocortisone is marketed as Cipro HC[®] whereas Ciprodex[®] is the combination of ciprofloxacin and dexamethasone. Ofloxacin is available as a single agent, Floxin otic[®]. Floxin otic[®] is the first topical agent indicated for both otitis externa and otitis media in children with tympanostomy tubes. It was also approved for chronic suppurative and acute otitis media for patients 1 year of age and older. Ciprodex[®] is indicated for both acute otitis externa and acute otitis media for patients 6 months of age and older. Cipro HC[®] does not have the additional indication of otitis media and is for acute otitis externa only. Quinolones with added corticosteroids, such as Ciprodex and Cipro HC appear to provide faster relief of symptoms. However, the single agent Floxin otic is indicated for chronic use. Chloromycetin and Otobiotic otic solutions, both brand and generic, are no longer available.

Generic Name	Trade Name	Dosage Form	Manufacturer	Generic
Chloramphenicol	Chloromycetin [®]	Solution (No Longer Available)	Parke Davis	Y
Ciprofloxacin & Hydrocortisone	Cipro HC Otic [®]	Suspension	Akorn	N
Ciprofloxacin & Dexamethasone	Ciprodex [®] Otic	Suspension	Alcon	N
Neomycin Sulfate, Polymyxin, Hydrocortisone	Cortisporin [®]	Solution, Suspension	Various	Y
Ofloxacin	Floxin Otic [®]	Solution	Daiichi	Y
Polymyxin B Sulfate & Hydrocortisone	Otobiotic [®]	Solution (No Longer Available)	Various	Y

Summary:

For many years, the products of choice for external otitis media have been the combination products containing neomycin and polymyxin B sulfate. When pain and inflammation are present, the previously mentioned agents combined with hydrocortisone are the preferred choice. The newest agents in the arsenal of ototopical agents are the quinolones. The quinolones have no known ototoxic effects. Since these products have comparable efficacy, selection of agents for

the preferred drug list should take the spectrum of coverage, safety, and cost into consideration. Many of the products are available generically and could be included on the PDL. In addition, one of the quinolones should be included for the treatment of otitis media.