Fusidic Acid for Ophthalmic Infections: A Review

Context
Superficial infections of the eye — such as conjunctivitis (or pinkeye, an infection of the conjunctiva) or blepharitis (an infection of the eyelid) — are relatively common in both children and adults. Superficial eye infections will usually resolve untreated but, because they are highly contagious, are often treated with antibiotic ophthalmic drops.

Technology
The antibiotic fusidic acid is available in a 1% suspension form (Fucithalmic) approved for the treatment of superficial infections of the eye caused by susceptible bacteria (Staphylococcus aureus, Streptococcus pneumoniae, and Hemophilus influenzae) in adults, and children two years of age and up. This product is formulated using a carbomer gel, which provides sustained release of fusidic acid and prolongs the antibiotic’s contact with the eye. It is one of several ophthalmic antibiotics that may be prescribed to treat eye infections such as conjunctivitis or blephararitis.

Issue
Given that the fusidic acid ophthalmic drops provide sustained release of the medication, usual dosing is one drop administered every 12 hours. This may be less frequent than other treatment options. A review of the clinical effectiveness, safety, and cost-effectiveness of fusidic acid for the treatment of ophthalmic infections compared with other available antibiotics will help to guide decisions about its use.

Methods
A limited literature search was conducted of key resources, and titles and abstracts of the retrieved publications were reviewed. Full-text publications were evaluated for final article selection according to predetermined selection criteria (population, intervention, comparator, outcomes, and study designs).

Key Messages
For the treatment of superficial bacterial eye infections:
- Topical fusidic acid resolved signs and symptoms of conjunctivitis and blepharitis in 76% to 91% of patients.
- Cure rates with fusidic acid were not significantly different from those of topical tobramycin, norfloxacin, or ciprofloxacin.

No evidence on cost-effectiveness was found.

Results
The literature search identified 107 citations of which 5 were deemed potentially relevant. An additional 4 articles were identified from the grey literature. Of the 9 reports, 2 systematic reviews met the criteria for inclusion in this review.