Back to basics: The allergy drop arsenal

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Ocular allergies can be a nuisance for patients, and one of the primary reasons for contact lens intolerance. Fortunately, there is a multitude of topical therapeutics available specifically to combat the allergic response.

Antihistamines

Topical antihistamines prevent histamine from binding to H₁ receptors on smooth muscle of the vasculature, thus reducing capillary permeability and itching.¹ The only available stand-alone antihistamine, Emadine (emepastine difumarate 0.05 percent, Alcon Laboratories), has also been shown to inhibit histamine release from mast cells.¹

OTC Ocular decongestant/antihistamine combinations

Topical antihistamines are more commonly used in combination with either decongestants or mast cell stabilizers. Ocular decongestants (α-adrenergic agonists) cause vasoconstriction of the conjunctival vasculature, which temporarily reduces hyperemia and slows the release of inflammatory mediators. Because of their sympathomimetic activity, decongestants can cause pupillary dilation, blurred vision, and rebound hyperemia.¹-² While not typically recommended, these drops are OTC and easily accessible for patients.

- Naphcon A (naphazoline/pheniramine, Alcon)
- Opcon-A (naphazoline/pheniramine, Bausch + Lomb)
- Visine-A (naphazoline/pheniramine, McNeil Pharmaceuticals)
- Vasocon-A (naphazoline/antazoline, Novartis)

Mast cell stabilizers

Mast cell stabilizers prevent the release of histamine and other inflammatory mediators by inhibiting mast cell degranulation. Although effective at disrupting the allergic cascade, they do not relieve itching and can take up to a week to reach full efficacy.¹-²

- Alamast (pemirolast potassium 0.1 percent, Vistakon)
- Alocril (nordocromil sodium 2.0 percent, Allergan)
- Alomide (loxdamide tromethamine 0.1 percent, Alcon)
- Crolom (cromolyn sodium 4.0 percent, Bausch + Lomb)

Antihistamine/mast cell stabilizer combinations

Newer pharmaceuticals combine antihistamines and mast cell stabilizers, providing both rapid relief from itching and long term prevention of further symptoms. Available both over-the-counter (OTC) and by prescription, these agents are typically used as first line treatments.

- Patanol (olopatadine hydrochloride 0.02 percent, Alcon) – Also available as Pataday (olopatadine hydrochloride 0.01 percent, Alcon) for once daily dosing
- Elestaf (epinastine hydrochloride 0.05 percent, Allergan)
- Optivar (azelastine hydrochloride 0.05 percent, Meda)
- Lastacaft (alcaftadine 0.25 percent, Allergan) – Once daily dosing
- Bepreve (bepotastine besilate 1.5 percent, Bausch + Lomb)
- Ketotifen fumarate 0.025 percent - Available OTC as Alaway (Bausch + Lomb), Zaditor (Alcon), Refresh Allergy (Allergan), and Claritin Eye (Schering-Plough)
References:

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