



CLINICAL RESEARCH

Ophthalmic Preparations of Interest to Optometrists

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Editor's Note:

This paper is a continuation of the tabulated listing of nearly 200 ophthalmic preparations begun in the March '84 CJO. It is too lengthy to publish in one issue of the CJO, so it will be presented in parts. The subject is tabulated in the following sections:

- Tear Supplements and Substitutes, Comfort Solutions.
- Vasoconstrictors, Decongestants, Astringents and Antihistamines.
- Topical Antibiotic, or other Antibacterial Preparations.
- Mydriatics / Cycloplaegics or both.
- Ophthalmic Ointments.
- Enzymatic Cleaners, Proteases and Lipases.
- Thermal Disinfection and Rinsing of Soft

Lenses, Storage Solutions.

- Chemical Cleaning and Disinfecting Solutions or Systems for Soft Lenses.
- Solutions Designed for Use With Hard Lenses.
- Solutions Designed for Use With Hard Gas-Permeable Lenses.
- Diagnostic Aids.
- Ocular Lubricants, Eyewashes, Irrigating Solutions, Cushioning Solutions or Ointments.
- Topical Anaesthetics.
- Hypertonic Solutions or Ointments.
- Drugs to Treat Glaucoma.

Readers will also note that some preparations will appear under more than one of the above descriptive headings.

Editors' Note: In Part I of this paper (March, 1984), we inadvertently omitted Dr. Lutzi's name as co-author of the paper. The CJO apologizes to Dr. Lutzi for this oversight.

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2. Vasoconstrictors, Decongestants, Astringents and Antihistamines

Product (Manufacturer or Distributor)	Viscosity Agent	Vasoconstrictor	Preservative	Buffer	Purpose or Other Ingredients
Albalon-A Liquifilm (Allergan)	polyvinyl alcohol 1.4%	naphazoline HCl 0.05%	benzalkonium chloride 0.004%, disodium edetate	sodium acetate, sodium citrate, citric acid, sodium hydroxide	Ocular antihistamine and sympathomimetic decongestant. Antazoline phosphate 0.5%, sodium chloride. Isotonic.
Albalon Liquifilm (Allergan)	polyvinyl alcohol 1.4%	naphazoline HCl 0.1%	benzalkonium chloride 0.004%, disodium edetate	citric acid, sodium citrate, sodium hydroxide	Sympathomimetic ophthalmic decongestant. Sodium chloride, purified water.
Clear Eyes (Abbott)	hydroxypropyl-methylcellulose 0.15%	naphazoline HCl 0.12%	benzalkonium chloride 0.01%, disodium edetate 0.1%	boric acid, sodium borate	Sympathomimetic ocular decongestant. Isotonic.
Collyre Bleu Laiter (Clear Blue) (Laiter)		naphazoline nitrate 0.05%	methylene blue 0.02%		Sympathomimetic ocular decongestant. Amylocaine HCl 0.2%, (an anesthetic), sodium chloride 0.825% and distilled water.
Collyrium with Ephedrine Soothing Eye Drops (Wyeth)		ephedrine HCl 0.1%	thimerosal not over 0.002%	boric acid 2.62%, sodium borate 0.38%	Sympathomimetic vasoconstrictor and ocular astringent. Sodium salicylate 0.056% and antipyrine 0.4%. Isotonic. pH about 6.8.

Degest 2 (Barnes-Hind)	hydroxyethylcellulose, povidone	naphazoline HCl 0.012%	benzalkonium chloride 0.0067%, disodium edetate 0.02%	sodium citrate, citric acid	Sympathomimetic ocular decongestant. Antipyrine 0.1%. Isotonic. pH 6.2.
Dew Drops (Pharmavite)		phenylephrine HCl 0.02%		boric acid 1.116%, borax 0.19%	Sympathomimetic ocular decongestant.
EFA "Emergency" Eye Drops (Accurate)		phenylephrine HCl 0.02%		boric acid 1.116%, sodium borate 0.19%	Ophthalmic solution. Sympathomimetic decongestant.
Epifrin (Allergan)			benzalkonium chloride 0.004%, disodium edetate		Sympathomimetic mydriatic and vasoconstrictor used for glaucoma therapy. L-epinephrine HCl 0.5%, 1%, or 2%, sodium metasulfite and purified water. Prescription may be required.
Epinal (Alcon)			benzalkonium chloride 0.01%	boric acid	Sympathomimetic mydriatic used for glaucoma therapy. L-epinephrine as the borate 1%, acetylcysteine and ascorbic acid. Prescription may be required.
Epitrate (Ayerst)	polyoxypropylene- polyoxyethylene-diol		chlorobutanol 0.55%, disodium edetate		Sympathomimetic mydriatic used for glaucoma therapy. L-epinephrine bitartrate 2%, sodium metabisulfite and sodium chloride. Prescription may be required.
Eppy-N $\frac{1}{2}$ % or N1%. (Barnes-Hind)	polyoxyl 40 stearate, povidone		benzalkonium chloride 0.01%	boric acid	Sympathomimetic mydriatic used for glaucoma therapy. Contains epinephryl borate USP 0.5% or 1%, and erythorbic acid. Prescription may be required. pH 7.4.
Glaucon (Alcon)			benzalkonium chloride 0.01%		Sympathomimetic mydriatic mostly used for glaucoma therapy. Contains epinephrine HCl 1% or 2% and sodium metabisulfite. Prescription may be required.
Muro's Opcon (Herd & Charton)	hydroxypropyl- methylcellulose	naphazoline HCl 0.1%	benzalkonium chloride 0.01%, disodium edetate	anhydrous sodium carbonate, boric acid	Sympathomimetic ocular decongestant. Sodium chloride.
Muro's Opcon A (Herd & Charton)	hydroxypropyl- methylcellulose	naphazoline HCl 0.025%	benzalkonium chloride 0.01%, disodium edetate 0.1%	boric acid, sodium borate	Sympathomimetic ocular decongestant. Contains pheniramine maleate 0.3%, sodium chloride and potassium chloride.
Mydrin (Alcon)		phenylephrine HCl 2.5%	benzalkonium chloride 0.01%, disodium edetate 0.05%	boric acid	Sympathomimetic, vasocon- strictor, mydriatic. Sodium bisulfite.
M-Z Solution (CooperVision)		phenylephrine HCl 0.12%	benzalkonium chloride 0.1%, disodium edetate 0.01%	boric acid, sodium carbonate	Sympathomimetic ocular decongestant, also contains zinc sulfate 0.25%, piperocaine hydro- chloride 0.75% and potassium chloride.
Naphcon-A (Alcon)		naphazoline HCl 0.025%	benzalkonium chloride 0.01%, disodium edetate 0.01%	boric acid, sodium carbonate	Sympathomimetic ocular decongestant and antihistamine. Pheniramine maleate 0.3% and sodium chloride.
Naphcon Forte (Alcon)		naphazoline HCl 0.1%	benzalkonium chloride 0.01%, disodium edetate 0.05%	boric acid	Sympathomimetic ocular decongestant. Contains sodium chloride and potassium chloride.
Neo-Synephrine (Sterling Products)		phenylephrine HCl 0.125%	thimerosal 0.001%	sodium citrate	Sympathomimetic ocular decongestant. Sodium chloride. Isotonic.
Neo-Synephrine (Sterling Products)		phenylephrine HCl 2.5%	benzalkonium chloride 0.01%	sodium phosphate	Sympathomimetic ocular decongestant, and mydriatic. Sodium chloride.
Ocular Ophthalmic Solution (Schering Canada)		oxymetazoline HCl 0.025%	benzalkonium chloride 0.01%, disodium edetate 0.01%	sodium hydroxide, boric acid	Sympathomimetic ocular decongestant. Contains sodium chloride, 1.2%. pH 6.4.
Phenylzin (CooperVision)	hydroxypropyl- methylcellulose 0.1%	phenylephrine HCl 0.12%	benzalkonium chloride 0.01%, disodium edetate 0.01%	boric acid 1.1%, sodium carbonate 0.02%	Sympathomimetic ocular decongestant. Zinc sulfate 0.25%, sodium bisulfite 0.01%, and potassium chloride.
Prefrin-A (Allergan)	polyvinyl alcohol 1.4%	phenylephrine HCl 0.12%,	benzalkonium chloride, disodium edetate	sodium citrate, boric acid	Sympathomimetic ocular decongestant and antihistamine.

					Pyrimamine maleate 0.1%, antipyrine 0.1%, sodium chloride, sodium bisulfite and purified water.
Prefrin Liquifilm (Allergan)	polyvinyl alcohol 1.4%	phenylephrine HCl 0.12%	benzalkonium chloride 1:25,000 (0.004%), disodium edetate	sodium phosphate, sodium acetate, sodium citrate	Sympathomimetic ocular decongestant and antihistamine. Antipyrine 0.1%, sodium chloride, potassium chloride and sodium bisulfite. Isotonic. pH 6.6.
Vasoclear (CooperVision)		naphazoline HCl 0.02%	benzalkonium chloride 0.01%, disodium edetate 0.03%		Sympathomimetic ocular decongestant. Lipidic polymeric vehicle and sodium chloride.
Vasocon (CooperVision)		naphazoline HCl 0.1%	phenylmercuric acetate 0.002%	boric acid 1.2%, sodium carbonate anhydrous	Sympathomimetic ocular decongestant. Sodium chloride. Isotonic.
Vasocon-A (CooperVision)		naphazoline HCl 0.05%	phenylmercuric acetate 0.002%	boric acid 1.2%, sodium carbonate anhydrous	Sympathomimetic ocular decongestant and antihistamine. Antazoline phosphate 0.5% and sodium chloride. Isotonic.
Visine A.C. Eye Drops (Leeming Div. Pfizer Inc.)		tetrahydrozoline HCl 0.05%	benzalkonium chloride 0.05%, disodium edetate 0.1%	boric acid sodium borate	Sympathomimetic vasoconstrictor to relieve minor eye irritation caused by allergies and/or colds. Contains zinc sulphate 0.25% and sodium chloride 0.1%. Hypotonic or isotonic, pH about 6.4.
Visine Eye Drops (Leeming Div. Pfizer Inc.)		tetrahydrozoline HCl 0.05%	benzalkonium chloride 0.05%, disodium edetate 0.1%	boric acid, sodium borate	Sympathomimetic vasoconstrictor. To relieve minor eye irritation. Sodium chloride 0.22%. pH about 6.4.
Zincfrin (Alcon)		phenylephrine HCl 0.12%	benzalkonium chloride 0.01%	citrate	Sympathomimetic vasoconstrictor and ocular astringent. Zinc sulfate 0.25%.
Zincfrin-A (Alcon)		naphazoline HCl 0.05%	benzalkonium chloride 0.01%	citrate, boric acid	Ocular astringent, sympathomimetic decongestant, and antihistamine. Antazoline phosphate 0.5%, zinc sulfate 0.125%.

3. Topical Antibiotic, or Other Antibacterial Preparations

Baciguent Ophthalmic Ointment (Upjohn)	chlorobutanol 5 mg/g (= 0.5%)	Topical antibiotic ophthalmic ointment. Bacitracin 500 IU/g, mineral oil and white petrolatum.
Neo-Bace (Pharmavite)		Ophthalmic antibiotic ointment. Contains polymyxin B sulphate 5000 IU/g and bacitracin 400 IU/g.
Polysporin Eye/Ear Drops (B.W. Inc.)		Antibiotic. Polymyxin B sulfate 10,000 IU/ml, gramicidin 0.025 ug/ml in a saline vehicle.
Polysporin Ointment (B.W. Inc.)		Antibiotic ointment. Contains polymyxin B sulfate 10,000 IU/g, bacitracin 500 IU/g, white petrolatum.
Stye (Commerce Pharmaceuticals)		Ophthalmic ointment. Boric acid 5%, cod liver oil, zinc sulphate 0.25% and yellow mercuric oxide 1%.

4. Mydriatics/Cycloplegics or both.

Atropine Ointment (Alcon)	methylparaben 0.05%, propylparaben 0.01%	Anticholinergic mydriatic, cycloplegic. Atropine sulfate, (di-hyoscyamine) 1.0%, white petrolatum, mineral oil and anhydrous lanolin. Also available as 1% solution.
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Cyclogyl (Alcon)			benzalkonium chloride, disodium edetate 0.01%	boric acid	Anticholinergic cycloplegic and mydriatic. Cyclopentolate HCl 1%, potassium chloride and sodium carbonate or hydrochloric acid to adjust pH.
Isopto Atropine (Alcon)	hydroxypropyl- methylcellulose 0.5%		benzalkonium chloride 0.01%	boric acid	Anticholinergic cycloplegic and mydriatic. Atropine sulfate 1%. Sodium hydroxide or hydrochloric acid to adjust pH. Isotonic.
Isopto Homatropine (Alcon)	hydroxypropyl- methylcellulose 0.5%, Polysorbate 80		benzalkonium chloride 0.001% in the 2% solution. Benzethonium chloride 0.005% in the 5% solution.		Anticholinergic cycloplegic and mydriatic. Contains homatropine hydrobromide, 2% or 5%, and sodium chloride.
Mydrin (Alcon)		phenylephrine HCl 2.5%	benzalkonium chloride 0.01%, disodium edetate 0.05%	boric acid	Sympathomimetic, vasocon- strictor, mydriatic. Sodium bisulfite.
Mydplegic (CooperVision)			benzalkonium chloride 0.01%, disodium edetate	boric acid, sodium carbonate	Anticholinergic cycloplegic and mydriatic. Cyclopentolate HCl 1% and potassium chloride.
Murocoll-2 Solution (Herd & Charton)		phenylephrine HCl 10%	benzalkonium chloride 0.01%, disodium edetate 0.1%		Sympathomimetic mydriatic and anticholinergic cycloplegic. Scopolamine hydrobromide 0.3%.
Mydriacyl (Alcon)			benzalkonium chloride 0.01%, disodium edetate 0.01%	buffers	Anticholinergic mydriatic and cycloplegic. Contains tropicamide 0.5%, or 1% and sodium chloride. Isotonic.
Neo-Syneprine (Sterling Products)		phenylephrine HCl 10%	benzalkonium chloride 0.01%	sodium phosphate	Sympathomimetic mydriatic.

5. Ophthalmic Ointments.

Atropine Ointment (Alcon)		methylparaben 0.05%, propylparaben 0.01%		Anticholinergic mydriatic, cycloplegic. Atropine sulfate, (dl-hyoscyamine) 1.0%, white petrolatum, mineral oil and anhydrous lanolin. Also available as 1% solution.
Baciguent Ophthalmic Ointment (Upjohn)		chlorobutanol 5 mg/g (=0.5%)		Topical antibiotic ophthalmic ointment. Bacitracin 500 IU/g, mineral oil and white petrolatum.
Duolube (Herd & Charton)		none		Ocular lubricant. Non-medicated ointment containing white and liquid petrolatum.
Duratears (Alcon)		methylparaben 0.05%, propylparaben 0.01%		Ocular lubricant. Containing white petrolatum 94%, anhydrous liquid lanolin and mineral oil 3%.
Lacri-Lube (Allergan)		chlorobutanol 0.5%		Ocular lubricant ointment. Contains white petrolatum 55%, mineral oil 42.5% and nonionic lanolin derivatives.
Muro 128 (Herd & Charton)	hydroxypropyl- methylcellulose, propylene glycol	methylparaben 0.023%, propylparaben 0.01%		Relieves corneal edema. Both a hypertonic solution and an ointment are available. Both contain sodium chloride 5%.
Neo-Bace (Pharmavite)				Ophthalmic antibiotic ointment. Contains polymyxin B sulphate 5000 IU/g and bacitracin 400 IU/g.
Polysporin Ointment (B.W. Inc.)				Antibiotic ointment. Contains polymyxin B sulfate 10,000 IU/g, bacitracin 500 IU/g, white petrolatum.
Stye (Commerce Pharmaceutics)				Ophthalmic ointment. Boric acid 5%, cod liver oil, zinc sulphate 0.25% and yellow mercuric oxide 1%.