

Glaucoma and Ocular Hypertension Treatment Guidelines (Topical products)

General notes:

All prescriptions should be written generically, e.g. Latanoprost not Xalatan®. There is no evidence to suggest that a branded product is more effective than a generic product. Brand names are included in this guideline to aid familiarity with the products but it is recognised that more products will become available as generic/non branded products over time, **if available generic products should be prescribed for cost-effectiveness.**

Fixed combination products should only be used if patients require more than two different eye drops to control their glaucoma or where compliance is an issue when using separate drops.

Preservative-free drops should only be used if patients are intolerant or allergic to preservatives, or where there is pre-existing ocular surface disease which is likely to be exacerbated by preservative-containing drops. Symptoms of preservative allergy or intolerance include eye pain, irritation or dryness. Clinical signs include redness of the conjunctiva, positive corneal and conjunctival fluorescein staining or reduced tear break up time.

See [BNF](#) and [SPC](#) for full lists of cautions/contraindications/side effects.

Additive stepwise approach to treatment:

Step 1 : Prostaglandin Analogues

Consider switching within class if suboptimal IOP lowering achieved with 1st choice prostaglandin analogue or patient does not tolerate first choice. Note that poor tolerance of the medication may be due to intolerance of the preservative in the drop or intolerance of the active ingredient.

Do not use prostaglandin analogues *unilaterally* if cosmesis is an issue (due to lash change and iris colour change – particularly with green eyes). In these cases, start with step 2.

1st line: **Latanoprost 50 micrograms/ml (generic)** Branded product (Xalatan®) £12.48 VS Generic product £5.59

Preservative allergy: **Latanoprost 50 micrograms/ml 0.2ml unit dose (Monopost®)**

2nd line: **Travoprost 40 micrograms/ml (generic)**

Preservative-free version not available

2nd line if preservative-free treatment required: **Tafuprost 15micrograms/ml (Saflutan®)**

NB. Patients may respond to bimatoprost even if both other prostaglandin analogues ineffective as unique molecule, however can be poorly tolerated.

3rd line: **Bimatoprost 0.01% (generic)**

Preservative allergy: **Bimatoprost 0.03% 0.4ml unit dose (Lumigan®)**



Step 2: Beta Blockers (in addition to step 1)

Caution in patients with asthma/COPD or heart block. If contraindicated skip to step 3.

NB. Deaths in asthma patients contributed to the use of topical beta blockers have been reported- AVOID due to the risk of bronchospasm. May be recommended for use once daily in the morning rather than twice daily as per licence. The evening dose has been shown to have no significant effect on intraocular pressure and may contribute to systemic hypotension overnight. All fixed dose combination products only provide timolol once daily. Timolol 0.25% has similar efficacy to timolol 0.5% but with increased side effects so timolol 0.25% should be the routine prescription concentration.

1st line: **Timolol 2.5mg/ml drops (generic)**

Preservative allergy: **Timolol 1mg/g eye gel 0.4g unit dose (Tiopex®)**

Consider **Timolol long acting ophthalmic gel 2.5mg/ml (Timoptol-LA®)** if ocular surface disease.

Fixed combination products:

Latanoprost 50micrograms/ml plus timolol 5mg/ml (generic) NOT RECOMMENDED - switch patients to either latanoprost 50 micrograms/ml 1 drop affected eye at night PLUS timolol 0.25% 1 drop into the affected eye in the morning.

Preservative free: Latanoprost 50micrograms/ml plus Timolol 5mg/ml eye drops 0.2ml unit dose (Fixapost®)

Bimatoprost 300micrograms/ml plus timolol 5mg/ml (Ganfort®)

Preservative free: **Bimatoprost 300micrograms/ml plus timolol 5mg/ml 0.4ml unit dose (Ganfort®)**

NB. Fixed combination product is cheaper for preservative free Ganfort® than individual component.

NB. Patients currently stable on DuoTrav® or Taptiqom® should not be switched.



Step 3: Carbonic Anhydrase Inhibitors (in addition to step 1 and 2 unless contraindication)

1st Line: **Brinzolamide 10mg/ml (generic)**

Preservative free version not available

Fixed combination: **Brinzolamide 10mg/ml plus timolol 5mg/ml (Azarga®)**

2nd Line: **Dorzolamide 20mg/ml (generic)**. Often stings upon administration. Brand names include Trusopt®

Preservative free: **Dorzolamide 20mg/ml 0.2ml multidose bottle (Eydelto®)** NB. *This is much cheaper than the unit dose option (Trusopt®). £12.09/month compared to £24.18.*

Fixed combination: **Dorzolamide 20mg/ml plus timolol 5mg/ml (generic)**. Brand names include Cosopt®

Fixed combination preservative free: **Dorzolamide 20mg/ml plus timolol 5mg/ml multidose bottle (Eylamdo®)** NB. *This is much cheaper than the unit dose option (Cosopt®). £14.29/month compared to £28.59.*

Beta blockers contraindicated and combination product indicated: **Brinzolamide 10mg/ml plus brimonidine 2mg/ml (Simbrinza®)**



Step 4: Alpha agonists (in addition to step 1, 2 and 3)

Alpha agonists are often poorly tolerated due to the development of allergy (follicular conjunctivitis) in one third of patients. Use of four agents to control intraocular pressure often leads to poor compliance, so in these cases consider selective laser trabeculoplasty or surgery.

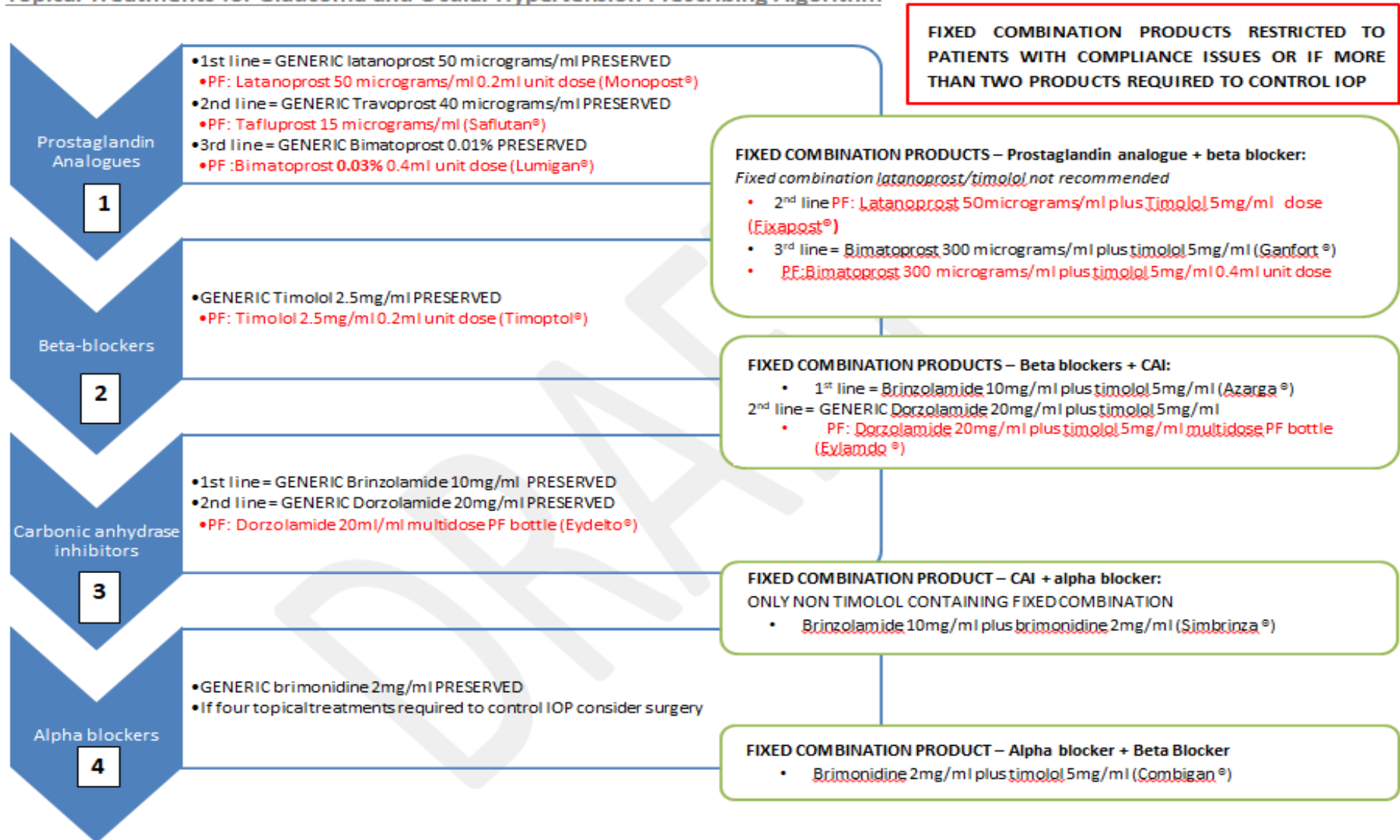
1st line: **Brimonidine 2mg/ml (generic)**

Fixed combination: **Brimonidine 2mg/ml plus timolol 5mg/ml (Combigan®)**

Quick reference guide to brand names (current as of Jan 2020)

Brand Name	Generic Name
Xalatan®	Latanoprost 50 micrograms/ml eyedrops
Monopost®	Latanoprost 50 micrograms/ml preservative free eyedrops
Travatan®	Travoprost 40micrograms/ml eyedrops
Saflutan®	Tafluprost 15 micrograms/ml preservative free eyedrops
Lumigan®	Bimatoprost 100 micrograms/ml eyedrops Bimatoprost 300 micrograms/ml preservative free eyedrops
Timoptol®	Timolol 0.25% eyedrops (can also be 0.5% but only 0.25% drops endorsed by this guideline) Timolol 0.25% preservative free eyedrops
Timoptol-LA®	Timolol 0.25% ophthalmic gel forming solution
Xalacom®	Latanoprost 50micrograms/ml + Timolol 5mg/ml eyedrops
Fixapost®	Latanoprost 50micrograms/ml + Timolol 5mg/ml preservative free eye drops
Taptiqom®	Tafluprost 15 micrograms/ml + Timolol 5mg/ml preservative free eyedrops
DuoTrav®	Travoprost 40 micrograms/ml + Timolol 5mg/ml eyedrops
Ganfort®	Bimatoprost 100 micrograms/ml + Timolol 5mg/ml eyedrops Bimatoprost 300 micrograms/ml + Timolol 5mg/ml preservative free eyedrops
Azopt®	Brinzolamide 10mg/ml eyedrops
Azarga®	Brinzolamide 10mg/ml + Timolol 5mg/ml eyedrops
Trusopt/Eydelto®	Dorzolamide 2% eyedrops Dorzoamide 2% eyedrops preservative free (Eydelto/Trusopt unit dose)
Cosopt/Eylamdo®	Dorzolamide 2% + Timolol 0.5% eyedrops Dorzolamide 2% + Timolol 0.5% preservative free eyedrops (Eylamdo/Cosopt unit dose)
Simbrinza®	Brinzolamide 10mg/ml +Brimonidine 2mg/ml eyedrops
Alphagan®, Brymont®	Brimonidine 2mg/ml eyedrops
Combigan®	Brimonidine 2mg/ml + Timolol 5mg/ml eyedrops

Topical Treatments for Glaucoma and Ocular Hypertension Prescribing Algorithm



References

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