Pharmacological Management of Glaucoma in Primary Care (adults): Formulary Options July 2018

NHS Wiltshire Clinical Commissioning Group

PRESCRIBE ALL EYE DROPS GENERICALLY to ensure the most cost-effective price and to reduce the risk of duplication. Prices below are based upon the generic price (if generic available) in the NHS Drug Tariff (February 2018). **Brand names are included for information only.**

Any decision to commence and continue treatment should be made with respect to the NICE guideline, NG81. A useful summary of this guidance can be found here: https://www.sps.nhs.uk/articles/nice-bites-glaucoma/

Always check adherence and eye drop instillation technique before changing treatment

FIRST-LINE TREATMENT OPTIONS

Prostaglandin analogue (PGA) administered nocte:

1st line: Latanoprost 0.005% (£1.40/2.5ml)

2nd line: Bimatoprost 0.03% (300mcg/ml) Aspire Pharma (£10.30/3ml)

3rd line: Travoprost 0.004% (Travatan®) (£10.95/2.5ml)

If one of the PGA eye-drops is not tolerated, try switching to a different PGA.

PRESERVATIVE FREE OPTIONS:

1st line: Latanoprost 0.005% Single Dose Units (SDU) (Monoprost®) (£8.49/30)

2nd line: Bimatoprost 0.03% SDU (Lumigan®) (£13.75/30)

- **3ml bottle**= 60 drops/bottle
- **5ml bottle**= 100 drops/bottle
- **10ml bottle**= 200 drops/bottle

No response to PGA or contraindicated/not tolerated or insufficient IOP lowering, **switch to or add in** beta-blocker (If no history of bronchospasm. Monitor for wheezing & discontinue immediately if occurs).

SWITCH TO Beta-blocker (BB):

1st line: Timolol 0.25% drops (£0.78/5ml) BD

2nd line: Timolol 0.25% gel (Timoptol-LA®) (£3.12/2.5ml) mane

PRESERVATIVE FREE OPTIONS: *28 day expiry*

Eysano® 2.5mg/ml or 5mg/ml 5ml drops (£8.45/£9.65)

ADD IN Beta-blocker (PGA + BB DUAL therapy) & keep the same PGA:

1st line: Latanoprost/Timolol (£2.07/2.5ml)

2nd line: Travoprost/Timolol (Duotrav® £13.95/2.5ml)

3rd line: Bimatoprost/Timolol (Ganfort® £14.16/3ml)

PRESERVATIVE FREE PGA + BB OPTIONS:

Bimatoprost/Timolol SDU (Ganfort® £17.50/30)

No response to beta-blocker or contraindicated/ not tolerated or insufficient IOP lowering, **switch to or add in** carbonic anhydrase inhibitor (CAI)

SWITCH TO Carbonic anhydrase inhibitor (CAI):

1st line: Dorzolamide 2% (£1.61/5ml)

2nd line: Brinzolamide 1% (£1.88/5ml)

PRESERVATIVE FREE OPTIONS:

Dorzolamide 2% (Eydelto®) (£12.09/5ml)

28 day expiry

ADD IN Carbonic anhydrase inhibitor (PGA+CAI+BB TRIPLE therapy) & keep the same BB & PGA:

1st line: PGA + Dorzolamide/Timolol (£1.50/5ml generic)

2nd line: PGA +Brinzolamide/Timolol (Azarga £11.05/5ml)

PRESERVATIVE FREE CAI + BB OPTIONS:

Dorzolamide/Timolol 5ml (Eylamdo®) (£14.29/5ml)

28 day expiry

No response to CAI or contraindicated/ not tolerated or insufficient IOP lowering, **switch to or add in** alpha-2 agonist

SWITCH TO Sympathomimetic (Alpha-2 agonist, A2A) (BD): Brimonidine 0.2% (£1.35/5ml) **NOTE:** *Higher risk of side-effects & sensitivity. Have a tendency to cause red eye.*

Refer patients to a specialist whose IOP cannot be reduced significantly with pharmacological treatment to prevent the risk of progression to sight loss.

ADD IN Sympathomimetic (Alpha-2 agonist) (PGA+CAI+BB+A2A QUADRUPLE therapy) & keep the same previous eye-drops:

1st line: PGA + BB + Brimonidine/Brinzolamide (£9.23/5ml, Simbrinza®)

2nd line: PGA + CAI + Brimonidine/Timolol (£10.00/5ml, Combigan®)

Dr Rachel Hobson, Formulary Pharmacist, Medicines Management, in consultation with local consultant opthalmologists at RUH, GWH and SFT on behalf of BCAP formulary July 2018

Pharmacological Management of Glaucoma in Primary Care (adults): Formulary Options July 2018

NHS Wiltshire Clinical Commissioning Group

Prescribing algorithm notes

Medical therapy of more than three topical agents should trigger consideration for either laser or surgical procedures. Maximal medical therapy would consist of all 4 classes of topical pressure-lowering medication and possibly oral acetazolamide and would be under close supervision by a specialist.

General principles

- All treatments should be initiated and monitored by an ophthalmologist. Where treatment is required to be started within 2 weeks, an initial supply should be made by the specialist.
- Patients may progress from first line to second line choice of eye drops if the specialist considers the second choice may clinically be more appropriate for the individual patient.
- Patients may switch drug classes if those in the above class are contraindicated / not tolerated, or be co-prescribed a new class if existing treatment is insufficient to manage the condition.
- Combination product(s) may be used where appropriate to reduce the number of bottles the patient is required to use. A maximum of two bottles (containing up to four different medicines) is considered optimal for patient compliance.
- Where clinically appropriate, glaucoma laser or filtration surgery can be considered as an adjunct or in place of topical therapy.
- Patients using more than 1 eye drop should be advised to leave at least 5 minutes between applying each drug for maximum benefit.

Preservative Free Eye-Drops

Offer preservative-free eye drops to people who have an allergy to preservatives or people with clinically significant and symptomatic ocular surface disease (NICE NG81). Also offer to those who use preservative retaining contact lenses or where glaucoma surgery is considered in the near future.

Monitoring

Following diagnosis, it is important to ensure that patients receive regular monitoring of Intra-Ocular Pressure (IOP) and visual field at appropriate intervals according to their risk of progressive loss of vision. Also the GP should monitor for allergy and other adverse effects of eye drops.

Information Leaflets for Patients:

- International Glaucoma Association: http://www.glaucoma-association.com/
- Primary Angle Closure Glaucoma: http://www.glaucoma-association.com/media/wysiwyg/Leaflet_PDF_Files/PACG_2016.pdf
- Primary Open Angle Glaucoma: http://www.glaucoma-association.com/media/wysiwyg/Leaflet_PDF_Files/Primary_Open_Glaucoma.pdf
- Eye Drops and Dispensing Aids: https://www.glaucoma-association.com/media/wysiwyg/Leaflet_PDF_Files/Eye_Drops_and_Dispensing_Aids_for_web.pdf

References:

The College of Optometrists, CLINICAL MANAGEMENT GUIDELINES: Glaucoma (primary angle-closure (PACG) https://www.college-optometrists.org/guidance/clinical-management-guidelines/glaucoma-primary-angle-closure-pacg-.html

Royal College of Ophthalmologists. Commissioning guide: glaucoma. June 2016. www.rcophth.ac.uk/wp-content/uploads/2016/06/Glaucoma-Commissioning-Guide-Recommendations-June-2016-Final.pdf

National Institute for Health and Care Excellence 2012. Services for people at risk of developing glaucoma (update) (CMG44) March 2012.

National Institute for Health and Care Excellence 2017. NICE Guideline 81, Glaucoma: diagnosis and management. https://www.nice.org.uk/guidance/ng81/

NICE Clinical Knowledge Summary 2012: Dry Eye Syndrome. https://cks.nice.org.uk/dry-eye-syndrome

NICE Quality Standard 7: Glaucoma (updated Nov 2017). https://www.nice.org.uk/guidance/qs7

Rosin L, Bell N. Preservative toxicity in glaucoma medication: clinical evaluation of benzalkonium chloride-free 0.5% timolol eye drops. Clinical Ophthalmology 2013;7:2131-2135.

NICE Clinical Knowledge Summary 2016: Glaucoma https://cks.nice.org.uk/glaucoma

Royal College of Ophthalmologists 2013. Generic latanoprost prescribing via www.rcophth.ac.uk/wp-content/uploads/2014/12/2013_PROF_226_Generic_Latanoprost_Prescribing.pdf

Dr Rachel Hobson, Formulary Pharmacist, Medicines Management, in consultation with local consultant opthalmologists at RUH, GWH and SFT on behalf of BCAP formulary July 2018