

## Brimonidine with timolol

The properties listed below are those particular to the combination only. For the properties of the components please consider, brimonidine tartrate p. 1251, timolol maleate p. 1244.

### ● INDICATIONS AND DOSE

**Raised intra-ocular pressure in open-angle glaucoma and for ocular hypertension when beta-blocker alone not adequate**

- ▶ TO THE EYE
- ▶ Adult: Apply twice daily

- **INTERACTIONS** → Appendix 1: beta blockers, non-selective · brimonidine

- **MEDICINAL FORMS** There can be variation in the prescribing of different medicines containing the same drug.

#### Eye drops

EXCIPIENTS: May contain Benzalkonium chloride

#### ▶ **Brimonidine with timolol (Non-proprietary)**

**Brimonidine tartrate 2 mg per 1 ml, Timolol (as Timolol maleate) 5 mg per 1 ml** Brimonidine 2mg/ml / Timolol 5mg/ml eye drops | 5 ml [PoM] £8.50 DT = £10.00

#### ▶ **Combigan (Allergan Ltd)**

**Brimonidine tartrate 2 mg per 1 ml, Timolol (as Timolol maleate) 5 mg per 1 ml** Combigan eye drops | 5 ml [PoM] £10.00 DT = £10.00 | 15 ml [PoM] £27.00

## 6 Retinal disorders

### 6.1 Macular degeneration

#### Age-related macular degeneration

25-Apr-2018

##### Description of condition

Age-related macular degeneration is a progressive eye condition that affects the central area of the retina (macula). It occurs mainly in people aged 55 years and over and is a common cause of vision loss. The progressive loss of central vision affects the patient's ability to see well enough to recognise faces, drive, and to read and write. Although the exact cause is unknown, known risk factors in addition to increasing age include smoking and a family history of age-related macular degeneration.

There are two types of age-related macular degeneration—dry and wet. Dry (non-neovascular) age-related macular degeneration progresses slowly as extensive wasting of macula cells occurs. Whereas, with wet (neovascular) age-related macular degeneration, new blood vessels develop beneath and within the retina, and can lead to a rapid deterioration of vision. Wet age-related macular degeneration is further classified as *wet-active* (neovascular lesions that may benefit from treatment) and *wet-inactive* (neovascular disease with irreversible structural change).

##### Aims of treatment

The aim of treatment is to slow down the progression of age-related macular degeneration and central vision loss; treatment is initiated under specialist care.

##### Treatment


Treatment is dependent on the stage and type of age-related macular degeneration, with drug treatment only recommended in patients with *wet-active* age-related macular degeneration. Counselling and support, advice on Smoking cessation p. 520, and use of visual aids is

recommended in all patients with age related macular degeneration as appropriate.

**EvGr** An intravitreal anti-vascular endothelial growth factor (anti-VEGF), such as aflibercept below, ranibizumab p. 1254, or bevacizumab p. 909 [unlicensed use], is first-line treatment for patients with *wet-active* age-related macular degeneration who have a visual acuity between 6/12 and 6/96. If visual acuity is less than 6/96, anti-VEGF treatment should only be given if the patient's overall visual function is likely to improve (e.g. if the affected eye is the patient's better-seeing eye). Anti-VEGF treatment should only be administered by healthcare professionals experienced in the use of intravitreal injections. See also National funding/access decisions for aflibercept below and ranibizumab p. 1254.

Treatment should be stopped if the patient develops severe, progressive loss of visual acuity despite treatment, or if the patient's age-related macular degeneration develops into *wet-inactive* with no prospect of visual function improvement. A treatment-free period can be considered in patients whose age-related macular degeneration appears to be stable.

Photodynamic therapy alone should not be given to patients with *wet-active* age-related macular degeneration. It can be given as an adjunct to anti-VEGF treatment as a second-line option in the context of a randomised controlled trial. Intravitreal corticosteroids are not recommended in combination with anti-VEGF treatment because there is limited evidence of benefit to a patient's visual acuity.

Patients should be advised to attend routine sight tests, self-monitor, and to report any changes in vision such as appearance of grey patches or blurred vision, straight lines appearing distorted, and objects appearing smaller than normal. 

##### Useful Resources

Age-related macular degeneration. National Institute for Health and Care Excellence. NICE guideline 82. January 2018.

[www.nice.org.uk/guidance/ng82](http://www.nice.org.uk/guidance/ng82)

#### ANTINEOVASCULARISATION DRUGS > VASCULAR ENDOTHELIAL GROWTH FACTOR INHIBITORS

##### Aflibercept

19-Mar-2020

- **DRUG ACTION** Aflibercept is a recombinant fusion protein that acts as a soluble decoy receptor and binds to vascular endothelial growth factors A and B (VEGF-A, VEGF-B) and placental growth factor (PlGF). Aflibercept inhibits the activation of VEGF receptors and the proliferation of endothelial cells, thereby inhibiting the growth of new vessels.

##### ● INDICATIONS AND DOSE

**Neovascular (wet) age-related macular degeneration (specialist use only)**

▶ BY INTRAVITREAL INJECTION

- ▶ Adult: Initially 2 mg once a month for 3 months, then 2 mg every 2 months, review treatment frequency after 12 months

**Macular oedema secondary to retinal vein occlusion (specialist use only)**

▶ BY INTRAVITREAL INJECTION

- ▶ Adult: Initially 2 mg once a month until maximum visual acuity is achieved or there are no signs of disease activity (discontinue treatment if no improvement in visual and anatomic outcomes)