

Pharmaceutical Care of the Eye (2008)

CPLD reviews its distance learning programmes every twelve months to ensure currency. This update has been produced by an expert and should be read in conjunction with the Pharmaceutical Care of the Eye (2008) distance learning course. Where updated information has been provided, we have indicated the relevant section and page number in Pharmaceutical Care of the Eye (2008) for your reference. All updated information is available to download from the CPLD website www.nicpld.org

Pharmacists are reminded that information contained in this addendum is correct at the time of publication (October 2009) but it is their responsibility to keep up-to-date with any changes in practice.

Section 2 – Structure and function of the eye

P22 - The arcus senilis is age related and is found in virtually all individuals over the age of 80. It may be associated with familial and non-familial dyslipoproteinaemias but may also occur without any predisposing factors

P24 - Uveoscleral outflow may be increased by miotics (eg pilocarpine) and prostaglandin analogues (eg latanoprost). (The alpha-2-adrenergic agonist apraclonidine reduces intraocular pressure possibly by reducing the production of aqueous humour. It is used for short term treatment only).

Section 3 – Responding to eye symptoms

P40 - Note: xylometazoline is a sympathomimetic; its use should be avoided in angle closure glaucoma. Absorption of antazoline and xylometazoline may result in systemic side effects and the possibility of interaction with other drugs.

P51 - Posterior uveitis refers to inflammation predominantly affecting the posterior segment of the eye. This would include inflammation of the vitreous ("vitritis") and retina ("retinitis") as well as the choroid ("choroiditis").

P51 - As iritis continues to develop, the inflamed pupil becomes "sticky" and forms attachments ("synechiae") to the lens; this can cause the pupil to appear small, irregular in shape and react poorly to light.

P51 - Corneal ulceration can be caused by infection, injury or rarely in association with systemic diseases (such as collagen vascular disorders eg rheumatoid arthritis, systemic lupus erythematosus).

Section 4 – Common diseases of the eye

P55 - The final bullet point should read 'double vision that is still present on covering one eye ("monocular diplopia").

P58 - Early cataract causes a myopic shift in spectacle prescription; therefore patients with early cataracts are advised to see their optician, as a change in prescription will often improve vision. Cataracts are hardly ever treated medically with dilating drops.

P60/61 - Initial treatment of open-angle glaucoma is usually through the use of a topical beta-blocker. A topical prostaglandin analogue (e.g. latanoprost) can be used in patients with pulmonary disease in which a topical beta-blocker would be inappropriate. An alternative choice in this group of patients would be a topical sympathomimetic (e.g. brimonidine) or a topical carbonic anhydrase inhibitor (e.g. dorzolamide); however, these agents are more likely to be used in combination therapy with a beta-blocker or a prostaglandin analogue. Combination preparations can sometimes help with compliance in elderly patients by reducing the frequency of administration of drops. N.B. Adrenaline eye drops are no longer prescribed.

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P61 - NICE Clinical Guideline 85 (Glaucoma: diagnosis and management of chronic open angle glaucoma and ocular hypertension. April 2009) states that patients with newly diagnosed early or moderate chronic open angle glaucoma (COAG) and at risk of significant visual loss in their lifetime should be treated with a prostaglandin analogue.

P64. Table 5 - Sympathomimetic drops: Adrenaline eye drops are no longer prescribed. Brimonidine (a selective alpha2-adrenoceptor agonist) is still used.

Prostaglandin analogues: these are now licensed as first-line treatment of chronic open-angle glaucoma and ocular hypertension. These agents include latanoprost, travoprost and bimatoprost.

P65 - The UK Prospective Diabetes Study (UKPDS) found that intensive blood sugar and blood pressure control in Type 2 diabetics reduced retinopathy progression. All diabetic patients should be encouraged to eat a healthy diet, exercise, lose weight and stop smoking.

P66 - Treatment of diabetic retinopathy: Preretinal membranes can be effectively peeled away by the vitreoretinal surgeon and a vitrectomy can remove haemorrhage from the vitreous caused by bleeding from new blood vessels ("proliferative retinopathy"). Panretinal photocoagulation with an argon or diode laser is an effective way of limiting damage caused by new blood vessels.

P67 - At present the dry changes associated with ARMD cannot be treated. Wet ARMD needs referral for urgent assessment. Treatment can consist of argon laser, photodynamic therapy, or intravitreal injections of the newer anti vascular endothelial growth factor (anti VEGF) ranibizumab (see NICE Technology Appraisal TA155: Pegaptanib and ranibizumab for the treatment of age-related macular degeneration. August 2008, and The Royal College of Ophthalmologists: Age-Related Macular Degeneration Guidelines for Management. February 2009).

Section 5 – Drug and disease related eye problems

P74 - Carbamazepine: Ocular side effects can also occur with other antiepileptic drugs. Visual field defects can occur with chronic use of vigabatrin, and twice-yearly visual field testing is advised for all patients who take this drug. Topiramate has been associated with acute myopia and secondary angle-closure glaucoma, typically occurring within 1 month of starting treatment. Choroidal effusions resulting in anterior displacement of the lens and iris have also been reported. Patients should seek specialist ophthalmological advice if they experience visual blurring or ocular pain.

P75 - Hydroxychloroquine: Patients should be monitored yearly and referred to an ophthalmologist if they develop a change in acuity or blurred vision.

P76 - Phenothiazine Tranquillisers: With prolonged high dosage, chlorpromazine can also cause retinotoxicity. Thioridazine can cause symptoms of reduced visual acuity and poor dark adaptation.

P76 - Other drugs: The antibiotic linezolid has the potential to cause severe optic neuropathy. Patients should be warned to report symptoms of visual impairment, and visual function should be monitored regularly if treatment is required for longer than 28 days. The alpha blocker tamsulosin can cause floppy iris syndrome which can lead to complications during cataract surgery.

P82 - The second sentence should end with 'pupillary mydriasis' instead of 'papillary mydriasis'.

Section 6 – Keeping eyes healthy

P100 - Legislation to allow optometrists to train and register with the General Optical Council as independent prescribers came into force in June 2008.

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Bibliography

P103 - Royal College of Ophthalmologists publications (www.rcophth.ac.uk).

Further information – Professional organisations

P103 -

The Royal College of Ophthalmologists, 17 Cornwall Terrace, LONDON NW1 4QW
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Exercise and Case Study Reviews

PA7 - Case Study 2 Review. Note: conjunctivitis in an infant aged less than one month old is a notifiable disease in the UK.

PA10 - Case Study 4 Review. Note: the Age Related Eye Disease Study (AREDS) showed that patients with moderate or advanced macular degeneration can benefit from vitamin supplementation. A further study (AREDS 2) is currently being undertaken to determine the most appropriate formulation to prevent progression of macular degeneration. The study will not be finished for a number of years yet; in the meantime, patients are advised to stop smoking and eat a healthy diet with fresh fruit and vegetables.

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