LEARNING DOMAINS

CLINICAL PRACTICE

SPECIALTY: CONTACT LENS OPTICIANS

PROFESSIONAL GROUPS

Dispensing opticians — CPD PROVIDER — General Optical Council

Optometrists — CPD PROVIDER — General Optical Council

Contact lens opticians — CPD PROVIDER — General Optical Council

CPD CODE: C-109353

MCQs AVAILABLE ONLINE: Tuesday 1 October 2024

CLOSING DATE: 31 December 2024

ANSWERS PUBLISHED: February 2025

This CPD session is open to all FBDO members and associate member optometrists. Successful completion of this CPD session will provide you with a certificate of completion of one non-interactive CPD point. The multiple-choice questions (MCQs) are available online from Tuesday 1 October 2024. Visit abdo.org.uk. After member login, scroll down and you will find CPD Online within your personalised dashboard. Six questions will be presented in a random order. Please ensure that your email address and GOC number are up-to-date. The pass mark is 60 per cent.

CPD CODE: C-109353

Common medications and their ocular effects

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According to the NHS Business Services Authority (NHSBSA) website, 1.18 billion prescription items were dispensed in England in 2022-2023[1]. Due to the rich blood supply, the eye has increased susceptibility to drug-related adverse effects[2]. Commonly-used drugs can have ocular side-effects that range from mildly irritating to severe and debilitating and, in the worst cases, irreversible sight loss can result. Optical practitioners are well placed to identify patients at risk of ocular adverse drug reactions and ensure their appropriate management. Patients may mistake adverse drug reactions for refractive correction errors and attend optometric practices to have the symptoms investigated. Understanding signs and symptoms may help to avoid remakes due to fluctuating refractive corrections.

CARDIOVASCULAR DRUGS

ANTIARRHYTHMICS

Amiodarone is an antiarrhythmic drug used to treat ventricular arrythmias. Use of amiodarone can cause deposits in the inferior cornea that appear in a whirl-like pattern. This is known as vortex keratopathy. It causes mild blurred vision symptoms in most cases, and is reversible within two to 20 months of drug cessation[3]. One-hundred per cent of cases are associated with mild changes – even at lower 100-200mg daily doses. Higher doses (800-1400mg) progress to stage three keratopathy in 23 per cent of cases[3]. Optical practitioners should communicate findings to medical professionals in charge of the patient's care so alternatives may be prescribed where necessary.

A rarer, but more serious side-effect of Amiodarone is drug-induced optic neuropathy. Swelling of the optic disc and abnormal colour vision has been reported[4] and prognosis on discontinuation ranged from complete to severe visual loss[5]. Any suspicion of optic neuropathy should be referred for ophthalmological opinion as an emergency to rule out giant cell arteritis (GCA)[6]. Fundus imaging and optical coherence tomography (OCT) are helpful for hospital triage because it helps hospital staff identify whether disc swelling is unilateral or bilateral. This is especially important for dispensing opticians and contact lens opticians who may not carry out ophthalmoscopy.

Digoxin is an antiarrhythmic drug used for atrial fibrillation and heart failure. Symptoms of toxicity can include blurred vision, colour vision changes such as yellowing of the vision and flickering vision[7] and warrant further examination with imaging and fundoscopy.

ANTIHYPERLIPIDEMICS

Cholesterol lowering medications are used to prevent cardiovascular diseases such as myocardial infarction and strokes by preventing atherosclerosis (**Table 1**). Statins and proprotein convertase subtilisin/kexin type 9 (PCSK9) inhibitors are types of cholesterol lowering medications, but statins are by far the most common. Atorvastatin was the most

CATEGORY	EXAMPLES (non-exhaustive)
Statins	Atrovastatin, Simvastatin, Rosuvastatin
PCKS9 inhibitors	Alirocumab, Evolocumab

TABLE 1: Examples of drugs used in the treatment of high cholesterol

prescribed drug in 2022-2023[1].

Statins are associated with blurred vision[8] and Atorvastatin and Simvastatin had the greatest incidence of blurred vision when comparing different statins[8]. The Blue Mountain Eye Study found that patients taking statins were more likely to have moderate to severe dry eye[9]. Management of symptoms may include warm compresses, massage and tear supplementation[10].

Cataracts have also been proposed as a side-effect of statins[11]. However, other meta-analyses have found no significant increase in cataract[12] or even a protective effect[13]. Statins have also been shown to exhibit other protective effect due to their pleiotropic actions. For example, statin use is associated with a slightly lower risk of primary open angle glaucoma (POAG) onset[14], although the evidence is weak at present due to the lack of randomised controlled trials. Statins may also be protective against uveitis, with a reduced risk of between 33 and 48 per cent suggested by one study[15].

ANTIHYPERTENSIVES

Calcium channel blockers are used in the treatment of hypertension, and up to 40 per cent of people with hypertension are prescribed a calcium channel blocker[16] (**Table 2**). They are associated with a 39 per cent higher chance of having glaucoma[16] – with Amlodipine showing the largest statistical association[17]. However, it should be noted that the first line treatment for patients with African ancestry is often a calcium channel blocker and so the higher prevalence of calcium channel blockers in a group with an increased risk of glaucoma due to race may have introduced some bias[16]. The third most prescribed drug in England in 2022-23 was Amlodipine[1].

Angiotension converting enzyme (ACE) inhibitors are another category of drug used in the treatment of hypertension. Ramipril is one example and was the fifth most prescribed drug in 2022-2023[1]. It has been suggested that ACE inhibitors may be protective against glaucoma by lowering intraocular pressure (IOP)[18]. They act on the renin-angiotension system (RAS) that is involved with vasoconstriction and vascular remodelling[18]. They prevent the breakdown of bradykinin, an enzyme which may increase prostaglandin synthesis and thus increase uveoscleral outflow lowering the IOP[18].

CATEGORY	EXAMPLES (non-exhaustive)
Calcium channel blockers	Amlodipine, Felodipine, Nifedipine, Verapamil, Lercanipidine
ACE Inhibitors	Ramipril, Enalopril, Lisinopril, Perindopril
Beta blockers	Atenolol, Bisoprolol, Propranolol, Metoprolol

TABLE 2: Common types of antihypertensive drugs

Beta blockers are used in the treatment of hypertension and are also used to slow the heart. They work by blocking the action of adrenaline. There are adrenergic receptors in the eye as well as the cardiovascular system, so beta blockers can be separated into cardio selective and non-selective. Non-selective beta blockers, such as Atenolol and Pindolol, can act in the anterior segment to reduce aqueous formation and lower IOP[19]. This may be protective against glaucoma. Timolol is a beta blocker available in drop formulation and is used in the treatment of glaucoma.

DIABETIC DRUGS

Hyperglycaemia in diabetics is associated with myopic shifts due to swelling of the lens and cornea. Commencement of diabetic hypoglycaemic drugs can lead to marked hyperopic shifts as blood sugar is brought under control[20]. Insulin and some oral medications can rapidly reduce glucose levels and so a patient recently started on these therapies will be at risk of refractive volatility.

One study, looking at patients treated with insulin or suphonylureas, found hyperopic change developed approximately 3.4 days after commencement of therapy and peaked at 10.3 days[20]. The change ranged between 0.50-3.75 dioptres of hyperopic shift[20]. Recovery lasted between 14 and 84 days[20]. It may therefore be prudent to advise patients to pause before purchasing spectacles as they may become redundant as blood sugar levels settle.

Table 3 lists common diabetic medications. Metformin was the ninth most prescribed drug in England in 2022-2023[1]. Metformin has few ocular side-effects, but dry eye disease has been reported[21]. It also has some positive side-effects, which include a decreased risk of developing age-related macular degeneration[22].

Gliclazide, Glimepride and Glipizide are common sulphonylureas drugs that work on the pancreas to increase insulin production[23]. As well as refractive shifts, sulphonylureas have been associated with optic neuropathy[19].

Thiazolidinediones (TZDs) are used in patients with type 2 diabetes as a second or third line treatment and work by sensitising adipose, muscle and liver

CATEGORY	EXAMPLES (non-exhaustive)
Biguanides	Metformin
Sulphonylureas	Gliclazide, Glimepiride, Glipizide
Meglitinides	Repaglinide, Nateglinide
Alpha-glucosidae inhibitors	Acarbose, Miglitol
Dipeptidyl peptidase-4 (DPP-4) Inhinitors	Sitagliptin, Linogliptin, Saxagliptin, Alogliptin
Glucagon-like peptide-1 (GPL1) receptor agonists	Dulagutide, Exenatide, Semiglutide, liraglutide
Sodium-glucose transport protein 2 (SGLT2) inhibitors	Dapagliflozin, Empagliflozin, Canagliflozin
Thiazolidinediones	Rosiglitizones, Pioglitazone

TABLE 3: Types of diabetic medication

tissues to insulin[24]. There has been some reports of TZDs being associated with an increase in macular oedema[25] while other reports suggest no association[26].

Overall, patients who have recently started diabetic therapies should be counselled as to the potential for their refractive status to change. This is due to refractive index changes of the media, or due to changes in macular oedema. Patients may also begin experiencing dry eye symptoms. This may manifest as irritable eyes, foreign body sensations or as contact lens intolerance. Artificial tear recommendations may help to alleviate symptoms. Contact lens compatible drops may improve lens tolerance.

CENTRAL AND PERIPHERAL NERVOUS SYSTEM DRUGS

The central nervous system (CNS) is comprised of the brain and the spinal cord. The peripheral nervous system is split into the autonomic and the somatic systems. The autonomic nervous system is responsible for the involuntary bodily functions such as the heartbeat and pupil dilation and constriction. The somatic nervous system is responsible for communication with the CNS and voluntary muscle control. The autonomic system is further broken down into the sympathetic (SNS) and the parasympathetic (PNS) nervous systems. The sympathetic uses the neurotransmitter norepinephrine to act upon the target tissue while the parasympathetic uses the neurotransmitter acetylcholine[27].

Figure 1 shows the branches of the CNS. Many drugs have actions that interfere with the neurotransmitters and thus exert adrenergic (mimic norepinephrine) or cholinergic (mimic acetylcholine) effects. **Table 4** shows the effect that may occur in the eye due to interference with the neurotransmitters of the autonomic nervous system.

A large range of drugs can have anticholinergic effects because acetylcholine is a neurotransmitter that works on cholinergic receptors throughout the whole body. The cholinergic receptors present in the ciliary muscle and the iris sphincter muscle cause accommodation on near objects and constriction of the pupil respectively when activated by acetylcholine.

Drug with anticholinergic effects can often cause blurred near vision and dilation of the pupil by blocking the effect of acetylcholine[28,29]. Patients with narrow angles who are prescribed drugs with anticholinergic effects should be made aware that pupil dilation from such drugs can worsen their condition. Symptoms of intermittent brow pain or eye pain following medication intake should be followed up and IOP measurements should be prioritised.

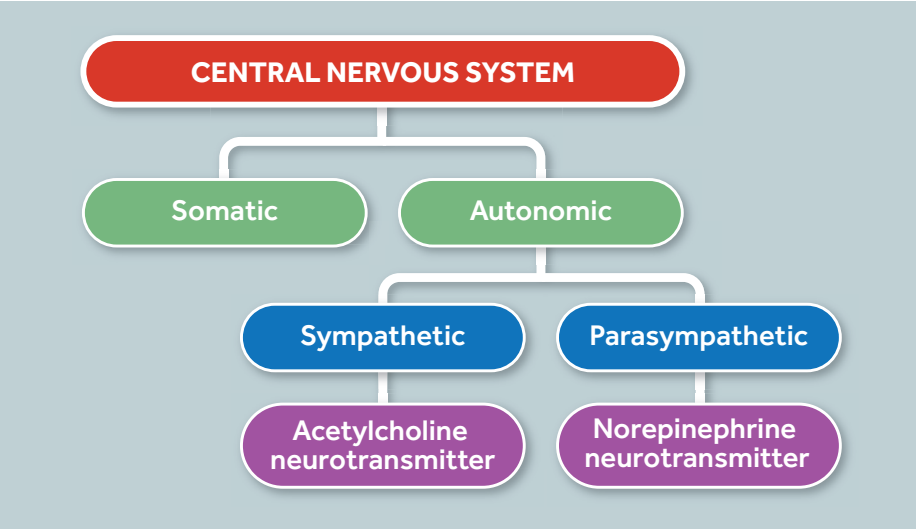

FIGURE 1: Branches of the central nervous system

ACTION	EFFECT
Mimic norepinephrine	Stimulates the pupil dilator muscle so the pupil dilates
Block the action of norepinephrine	Blocks the stimulation of the dilator muscle so pupil constricts
Mimic acetylcholine	Stimulates the sphincter muscle so pupil contracts
Block the action of acetyl choline	Blocks the effects of acetylcholine so the sphincter relaxes and the pupil dilates Blocks ciliary muscle contraction and reduces accommodation

TABLE 4: The effects of neurotransmitters of the nervous system on the eye

ANTIDEPRESSANTS

In high income countries, the lifetime average prevalence of major depressive episodes in adults is 14.6 per cent[30]. In England in 2022-2023, Sertraline was the 10th most prescribed drug[1]. Selective serotonin reuptake inhibitors (SSRIs) and selective noradrenaline reuptake inhibitors (SNRIs) are associated with dry eyes due to interference with aqueous and mucus secretion. They interfere with acetylcholine effects by competing with acetylcholine for the receptors reducing the signalling for tear secretion[31].

SSRIs and SNRIs can also have the aforementioned effects on pupil dilation and accommodation, and extra care should be given to patients with glaucoma and ocular hypertension. Anterior chamber measurement by Van Herick's technique should be completed and monitored. Other visual issues identified with SSRI use include reduced visual acuity, night blindness, visual snow, vitreous floaters, photophobia and diplopia[32]. It has been suggested that SSRIs may cause long lasting blurred vision even after continuation of the drug[32].

Noradrenaline and specific seratogenic antidepressants (NASSAs) such as Mirtazapine can induce pupil dilation and dry eye through their anticholinergic effects[33]. Monoamine oxidase inhibitors (MAOIs) are less commonly prescribed but have been shown to cause blurred vision and very rarely 'ping-pong' gaze where the

eyes move from one extreme of gaze to the other[34].

Tricyclic antidepressants, such as Amitriptyline, cause dry eyes from decreased lacrimation, blurred vision, corneal oedema and mydriasis which can lead to angle closure in patients with narrow angles[34].

Table 5 shows the categories of antidepressants with examples.

OTHER DRUGS WITH ANTICHOLINERGIC EFFECTS

Table 6 shows examples of other drugs, which may exert anticholinergic effect. Common antihistamine drugs such as Diphenhydramine (Benadryl) and Cetirizine (Piriton) can have anticholinergic effects[35].

Antispasmodics, for example Oxybutanin, which is used for overactive bladder[35] and many nervous system drug such as sedatives including Diazepam, and antipsychotic drugs such as Clozapine and Olanzapine, can also have anticholinergic effects.

ANTIEPILEPTICS

Drugs such as Topiramate and Vigabatrin are used in the treatment of epilepsy. Topiramate has been shown to be associated with myopic shift and angle closure[36,37]. The pathophysiological mechanism seems to be ciliochoroidal effusion[38], an accumulation of fluid between the ciliary body complex and the sclera causing narrowing of the anterior chamber.

Vigabatrin has been shown to cause visual field constriction. Between 30 and 40 per cent of patients were found to have Vigabatrin-related visual field constriction which persisted on drug withdrawal[39]. Royal College of Ophthalmologists guidelines suggest baseline visual field testing with static suprathreshold with 120 points and follow-up every six months for three years and then yearly thereafter[40].

GENITOURINARY DRUGS

ALPHA 1 RECEPTOR ANTAGONISTS

This class of drug acts on the alpha receptors of smooth muscle. They are used to treat benign prostatic hyperplasia. Tamsulosin has the highest binding affinity to the alpha 1a subtype of receptors[41]. These are the receptors that are predominantly found on the iris dilator muscle. Use of Tamsulosin causes atrophy of the dilator muscle[42].

This is problematic in cataract surgery as it can cause intraoperative floppy iris syndrome (IFIS) whereby the iris can billow and flutter and progressively constrict during surgery. This leads to a tendency for complications such as iris prolapse through the instrument access tunnels, iris damage from the tip of the phaco probe, and posterior capsule damage[43,44]. It is good practise to include on cataract referrals where a patient uses Tamsulosin.

PHOSPHODIESTERASE TYPE 5 INHIBITORS

These drugs are used to treat erectile dysfunction and pulmonary hypertension. Examples include Sildenafil (Viagra) or Tadalafil. They work by inhibition of PDE5 enzyme, which relaxes the blood vessels and increases blood flow[45]. In some instances, this can reduce perfusion to the optic nerve resulting in non-arteritic ischaemic optic neuropathy (NAION)[46]. Symptoms can include poor visual acuity, washed out colours, and visual field defects and signs include disc swelling and haemorrhages. These signs and symptoms warrant further investigation and urgent onward referral.

ANTIRHEUMATIC DRUGS

HYDROXYCHLOROQUINE

Hydroxychloroquine is used for the treatment of rheumatoid arthritis (RA) and as an anti-malarial. It was the 169th most prescribed drug in 2022-2023 in England[1]. It works by regulating the activity of the immune system when prescribed for RA, and by killing the organism that causes malaria when prescribed for malaria prophylaxis or treatment.

Hydroxychloroquine binds to melanin and accumulates in the retinal pigment epithelium (RPE). This accumulation is toxic to the RPE and causes disruption of RPE metabolism and reduces phagocytosis of the photoreceptor outer segments. Eventually, RPE atrophy and photoreceptor loss occurs[47].

Royal College of Ophthalmologists guidelines recommend baseline

CATEGORY	EXAMPLES (non-exhaustive)
Selective serotonin reuptake inhibitors (SSRIs)	Sertraline, Fluoxetine, Citalopram, Escitalopram
Seratonin-noradrenaline reuptake inhibitors (SNRIs)	Duloxetine, Venlafaxine
Noradrenaline and specific serotonergic antidepressants (NASSAs)	Mirtazipine
Tricyclic antidepressants	Amitriptyline, Clomipramine, Imipramine, Chlorpromazine
Monoamine oxidase inhibitors (MAOIs)	Tranylcypromine, Phenelzine

TABLE 5: The categories of antidepressants and examples

CATEGORY	EXAMPLES (non-exhaustive)
Sedatives	Barbiturates – Phenobarbital, Pentobarbitol Benzodiazepines – Diazepam, Tempazepam
Antipsychotics	Chlorpromazine, Olanzapine, Risperidone, Haloperidol
Antihistamine	Loratadine, Cetirizine, Chlorphenamine
Antispasmodics	Oxybutanin
Mydriatics	Tropicamide, Atropine, Cyclopentalate
Antiemetics	Scopolamine, Glycopyrrolate

TABLE 6: Drug categories and example that may exert anticholinergic effects

FIGURE 2: Hydroxychloroquine toxicity pigmentary changes

FIGURE 3: Widefield fudus autofluorescence showing hydroxychloroquine toxicity changes

ophthalmological examination followed by commencement of annual screening five years after starting treatment. However, earlier annual screening may be required for patients with additional risk factors including: 1) impaired renal function; 2) concurrent Tamoxifen treatment; and 3) daily doses higher than 5mg/kg of body weight[48,49].

Screening episodes are usually carried out in the hospital eye service and involve spectral domain OCT and widefield fundus autoflurescence (FAF) in the first instance. If abnormalities are detected, further testing with Humphrey visual fields and then multifocal ERG (mfERG) is recommended[48]. Patients may be asymptomatic or experience:

- Colour deficiency in particular red abnormality
- Missing central vision
- Difficulty reading
- Blurred vision
- Flashing lights
- Metamorphopsia

Signs of toxicity include pigmentary changes, hyper-autoflurescence in the parafoveal area, the flying saucer sign on OCT and paracentral scotoma on visual fields. **Figure 2** shows hydroxychloroquine toxicity pigmentary changes. **Figure 3** shows the autofluorescence, and **Figure 4** shows the OCT changes.

At the first signs of retinal toxicity, treatment should be stopped by the prescribing clinician. It is irreversible and may even continue to progress following cessation, so the earlier this is identified and recognised the greater the chance of a favourable prognosis.

CORTICOSTEROIDS

Corticosteroids are used for a range of inflammatory conditions including RA, asthma, allergies, arthritis, giant cell arteritis as well as many inflammatory ocular conditions such as uveitis and following cataract surgery. They can be given orally, inhaled or topically in drop or cream form.

Ocular topical, intravitreal or periocular steroids pose the greatest risk for pressure change, but similar effects have also been noted in the other routes of administration. The two main side-effects are posterior subcapsular cataract (PSC) formation and increased IOP[50].

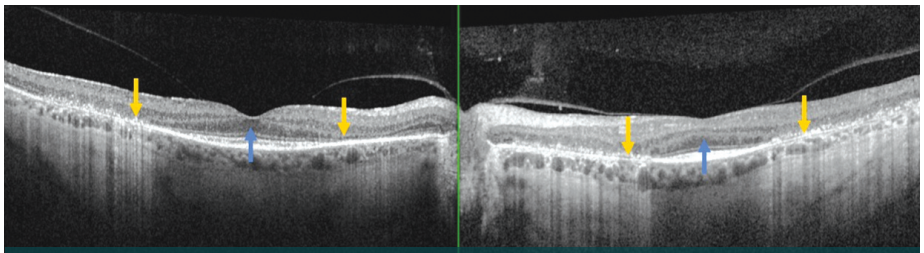

FIGURE 4: OCT image showing hydroxychloroquine toxicity changes

PSC gives rise to early symptoms of blur and glare because it often develops on the visual axis. They can sometimes progress rapidly within weeks to months and so patients can go from relatively asymptomatic to levels of sight impairment quickly. **Figure 5** shows retroillumination of PSC. Prescribing spectacles with a recent onset of steroid use should be done with caution due to the likelihood of the accelerated need for cataract surgery and shortened lifetime of the spectacle correction.

IOP increases usually occur after three to six weeks for ocular topical use and can return to normal two weeks following cessation. Armaly *et al*[51] suggested three categories of steroid responders:

1. High responders (four to six per cent of the population) 31mmHg or more or greater than 15mmHg change;
2. Moderate (approximately 30 per cent of population) 25-31mmHg or 6-15 mmHg change; and
3. Non responders (approximately 60 per cent of the population) a rise of less than 6mmHg from baseline.

High IOP from steroid use can lead to steroid-induced glaucoma and the biggest risk is for patients who already have a family history of glaucoma[52]. High responders require more urgent referral to the hospital eye service due to risk of retinal vascular occlusion, and moderate responders should be referred as per local ocular hypertension and glaucoma suspect protocols. Non-responders may need to be monitored more frequently in primary care depending on the degree of response and family history for glaucoma.

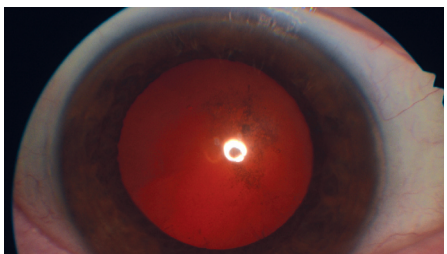

FIGURE 5: Retroillumination of PSC

BISPHOSPHONATES

Bisphosphonates, such as alendronate and zolendronic acid, are often prescribed to counteract the bone calcium loss secondary to systemic steroid therapy. Side-effects include uveitis, episcleritis and scleritis[53]. Symptoms emerge within six to eight weeks of oral bisphosphonates[53] and include redness pain or grittiness and photophobia. Red eye presenting six to eight weeks of bisphosphonate commencement should be investigated with slit lamp examination for anterior chamber cells and flare to rule out scleritis and uveitis.

ANTI-CANCER DRUGS

TAMOXIFEN

Tamoxifen is a hormone therapy used to treat breast cancer. It can cause Tamoxifen retinopathy whereby crystalline deposits, cystoid macular oedema and telangiectasia, small dilated and tortuous capillary clusters, form in the macular. Twelve per cent of patients taking Tamoxifen develop retinopathy and half develop visual changes[54]. Imaging such as fundus pictures and OCT are particularly useful for monitoring and detection.

MEK INHIBITORS

Mitogen-activated protein kinase (MEK) inhibitors inhibit proteins which control cell growth and survival. Examples include Trametinib, Cobimetinib and Selumetinib. They are used in the treatment of melanoma. Ocular effects of MEK inhibitors include punctate keratitis and dry eye, blepharitis and lid irritation, ocular inflammations including scleritis, uveitis and episcleritis, retinal vein occlusion (RVO) and IOP spikes causing glaucoma[55]. Slit lamp assessment for cells and flare and tonometry are necessary.

ANTI-TUBERCULOSIS DRUG

Tuberculosis (TB) is in on the rise in the UK with an increase of 10.7 per cent in 2023 compared to 2022[56]. Ethambutol and Isonaizid are known to cause optic neuritis and patients can present with reduced visual acuity, central scotomas, and red/green colour vision loss and pain that worsens on eye movements[57-59]. Optic neuritis may occur in up to one per cent of patients taking the World Health Organisation (WHO) recommended dose[57].

DERMATOLOGICAL DRUGS

Isotretinoin is used in the treatment of severe acne. It also affects the meibomian glands and can cause meibomian gland dysfunction (MGD)[60]. The dryness and irritation may lead to difficulty tolerating contact lenses[61]. Treatment involves heating the lid and manually expressing the glands with massage. Optimum temperature was found to be 44˚C[62] for 25 minutes[63]. The DEWS 2017 report, however, suggested this could be as short as five minutes[64]. Tear film instability may give rise to intermittent blurred vision symptoms, which may be alleviated with tear supplementation and training the patient to heat and massage their lids.

DIFFERENTIAL DIAGNOSIS

It can be difficult to differentiate drug side-effects from true refractive or pathological factors. In such situations, it is helpful to think about the following:

- Has the patient recently started a new medication?
- Has the patient recently had a dose change?
- Does the patient have kidney or liver disease, which may impede clearance from the body?
- Has the patient recently lost weight, which can affect the safe dosage of medication?
- Has the patient had recent bouts of illness, which may affect absorption and clearance of the drug?
- Is the patient part of a screening programme due to a condition or drug?

Red flags that may prompt further questioning include:

- Long-standing stable refractive error that suddenly changes
- Intermittent or persistent blurring of vision
- Irritable or red eyes
- Colour vision anomalies, distortion or scotomas
- Sudden requirement for tints or photochromic lenses
- Patients under hospital services for eyes/diabetes/renal or hepatic services

Dispensing opticians and contact lens opticians may be first to encounter a patient with side-effects from systemic medication. Some symptoms may be immediately managed such as mild irritation caused by dry eye with the use of tear supplementation and training on lid hygiene. Other symptoms, such as loss of vision, scotomas, colour vision defects and pain, may require referral to an optometrist or directly to the hospital. Imaging with fundus photography and OCT can help hospital services to triage more effectively when optometrist colleagues are unavailable for consultation.

Finally, where there are recent changes in medications, refractive volatility must be considered. Either delay and retest to check for stability or, where dispensing is unavoidable, an estimated lifespan of the refractive correction should be made clear.

REFERENCES

References can be found when completing this CPD module. For a PDF of this article with references email, abdocpd@abdo.org.uk

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LEARNING OUTCOMES FOR THIS CPD ARTICLE

DOMAIN: Clinical Practice

7.1: *Conduct an adequate assessment for the purposes of the optical consultation, including where necessary any relevant medical information including prescribed and non-prescribed medications.*

7.3: *Only prescribe optical or medical devices or treatment plans when you have adequate knowledge of the patient's health, considering any prescribed and non-prescribed medications they may be taking.*

7.5: *Provide effective patient care and treatments, which include consideration of any prescribed and non-prescribed medications they may be taking.*

DOMAIN: CL speciality

In your professional capacity, ensure a full history is taken to include information regarding any prescribed and non-prescribed medications the patient may be taking and how this information may influence your clinical decision-making.

CLINICAL PRACTICE

SPECIALITY: CONTACT LENS OPTICIANS

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