

Eyes and Vision Summary

The role of the GP in the care of people with eye and vision problems

As a GP your role is to:

- Understand how visual loss and impairment is a significant cause of physical and psychosocial morbidity, which is a barrier to accessing healthcare. This can be overcome by appropriate rehabilitation for the visually impaired
- Co-ordinate access to community and secondary care services
- Undertake opportunistic health screening, ensuring that patients have regular eye tests and are referred appropriately and in a timely manner
- Recognise how sight loss can interfere with mobility and lead to social isolation and difficulty in communication (such as use of telephones or computers), as well as the impact of poor eye health on loss of confidence, mental health, activities of daily living, independent living and ability to work
- Take a focused history, examine, diagnose and treat common eye conditions and know when to refer to specialist care.

Key Areas for Exam preparation

Common / important conditions

- Cataracts – congenital, acquired such as drug induced
- Colour blindness
- Congenital, neonatal and childhood eye problems, such as prematurity, congenital cataract, vitamin A deficiency
- Conjunctivitis including infectious causes (bacterial, viral, parasitic and chlamydial), and allergic causes
- Contact lens use including infections such as acanthamoeba, corneal damage
- Diabetic eye disease
- Disorders of tears and tear ducts such as dacryocystitis, sicca syndrome, epiphora, dry eyes
- Disorders of the pupil such as Horner's syndrome, Holmes-Adie
- Dual sensory impairment and loss (vision and hearing)
- Episcleritis, corneal or dendritic ulcers, pterygium, pinguecula, corneal injury and erosions
- Eye trauma including penetrating trauma, corneal abrasions, chemical burns, contusions, hyphaema
- Eyelid problems such as blepharitis, ectropion, entropion, chalazion, Meibomian cysts, and styes
- Genetic eye problems such as retinoblastoma, retinitis pigmentosa
- Glaucoma – acute, closed angle and chronic open angle
- Intracranial pathology affecting vision
- Keratitis including association with other diseases such as rosacea, thyroid disease
- Keratoconus
- Loss of vision or visual disturbance; differential diagnoses and appropriate management including timescale of urgency
- Macular degeneration – age-related (wet and dry), drusen
- Malignancy such as retinoblastoma, lymphoma, melanoma
- Ophthalmic herpes zoster
- Ophthalmic manifestations of infections such as syphilis, TB, toxocariasis, toxoplasmosis
- Optic neuritis and neuropathy
- Orbital infections such as cellulitis, tumours
- Red eye – differential diagnoses and appropriate management including timescale of urgency
- Refractive error including myopia, hypermetropia, astigmatism
- Retinal problems including
 - atrophy;
 - detachment;
 - haemorrhage, exudates, blood vessel changes associated with systemic diseases, such as hypertension, diabetes, haematological diseases thromboses or emboli;
 - tumours such as melanoma, neuroblastoma; and
 - vascular lesions
- Squint – childhood and acquired due to nerve palsy, amblyopia, blepharospasm
- Subconjunctival haemorrhage
- Systemic diseases with associated eye symptoms/signs, such as hypertension, diabetes, raised intracranial pressure, multiple sclerosis, sleep apnoea, giant cell arteritis
- The effect of stroke and migraine on vision
- Thyroid eye disease
- Uveitis including knowledge of underlying associations e.g. inflammatory bowel disease, connective tissue diseases
- Vitreous detachment.

Suggested resources

General information

- www.moorfields.nhs.uk GP Handbook. Common eye conditions
- NICE (2019) *Serious eye disorders* nice.org.uk
- NICE Clinical Knowledge Summaries <https://cks.nice.org.uk/>
- bnf.nice.org.uk/
- DVLA guidance <https://www.gov.uk/driving-eyesight-rules>
- Khaw,P.T., Shah,P., Elkington,A.R. (Eds.) (2004) *ABC of eyes*. London: BMJ Books
- <https://www.rcgp.org.uk/-/media/Files/CIRC/Eye-Health/RCGP-Sight-Loss-in-Older-People-A-Guide-for-GPs.ashx?la=en>
- <https://www.rcgp.org.uk/eyehealth>
- Reidy,A., Minassian,D.C., Vafidis,G., et al. (1998) Prevalence of serious eye disease and visual impairment in a north London population: population based, cross sectional study. *BMJ*. **316**(7145), 1643-1646
- WHO (2015) *Prevention of Blindness and Visual Impairment. Priority eye diseases*. World Health Organisation www.who.int

Cataracts

- Cataracts Last revised in September 2015 <https://cks.nice.org.uk/>
- Allen,D. and Vasavada,A. (2006) Cataract and surgery for cataract. *BMJ*. **333**(7559), 128-132
- Royal College of Ophthalmologists (2010) *Cataract surgery guidelines 2010*. Royal College of Ophthalmologists.. www.rcophth.ac.uk

Colour blindness

- Royal National Institute for the Blind www.rnib.org.uk
- LOOK www.look-uk.org
- Oxford Handbook of General Practice 4th Ed. 970

Congenital eye problems

- National Blind Children's Society www.nbcs.org.uk
- Russell,H.C., McDougall,V. and Dutton,G.N. (2011) Congenital cataract. *BMJ*. **342**, d3075.
- Medsingh,A. and Nischal,K.K. (2015) Paediatric cataract: challenges and future directions. *Clinical Ophthalmology*. **9**, 77-90
- *Newborn and infant physical examination screening: programme overview*. Public Health England www.gov.uk
- College of Optometrists (2013) *Clinical management guidelines: Ophthalmia neonatorum*. College of Optometrists.www.college-optometrists.org/guidance/clinical-management-guidelines/conjunctivitischlamydial.html

Contact lenses

- Oxford Handbook of General Practice 4th Ed. 982
- Contact lens complications. *Ophthalmol Clin North Am*. 2003 Sep;16(3):471-84.
- Morgan PB et al. Incidence of keratitis of varying severity among contact lens wearers. *Br J Ophthalmol*. 2005 Apr;89(4):430-6
- **R. Mitchell, R. Edwards:** Prescribing for patients who wear contact lenses. *Prescriber*. 2001 40-44

Conjunctivitis

- NICE Clinical Knowledge Summaries:
 - Allergic <https://cks.nice.org.uk/conjunctivitis-allergic>
 - Infective <https://cks.nice.org.uk/conjunctivitis-infective>
- BMJ Best Practice (2017a) *Acute conjunctivitis*. *BMJ*. bestpractice.bmj.com/best-practice/monograph/68.html
- Alfonso SA, Fawley JD, Alexa Lu X (2015) Conjunctivitis. *Prim Care*. **42**(3), 325-345.
- **J. Au Jefferies, R. Perera, H. Evert:** Acute infective conjunctivitis in primary care: Who needs antibiotics? Individual patient data meta-analysis. *British Journal of General Practitioner*. 61 (590)2011
- Bielory L, Meltzer EO, Nichols KK, Melton R, Thomas RK, Bartlett JD (2013) An algorithm for the management of allergic conjunctivitis. *Allergy Asthma Proc*. **34**(5), 408-420.

Disorders of tear duct

- Practical General Practice: Guidelines for Effective Clinical Management, 7e: 375
- Congenital Nasolacrimal Duct Obstruction (CNLDO): A Review. Vagge A *et al* <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6313586>

Disorder of pupil

- www.gpnotebook.co.uk/simplepage.cfm?trip=1&ID=-1261436918
- www.gpnotebook.co.uk/simplepage.cfm?trip=1&ID=-200933366
- www.medicinenet.com/dilated_pupils_mydriasis/symptoms.htm
- Pupil Disorder – RACGP (2004). Hodge C.

Dry eye

- NICE Clinical Knowledge Summaries <https://cks.nice.org.uk/>
- BMJ Best Practice (2016) *Dry eye*. *BMJ*. www.bestpractice.bmj.com/best-practice/monograph-pdf/962.pdf
- BMJ (2016) The management of dry eye. *DTB*. **54**, 9-12.
- Scottish Dry Eye Guidelines version 1.1 (2018) NHS Scotland. 2018
- All Wales Medicines Strategy Group (2016) *Dry eye syndrome guidance*. *All Wales Medicines Strategy Group*. www.awmsg.org/docs/awmsg/medman/Dry%20Eye%20Syndrome%20Guidance.pdf

Dual sensory impairment

- SENSE <https://www.sense.org.uk/get-support/information-and-advice/social-care-for-adults>
- Deafblind <http://deafblind.org.uk/>

Episcleritis

- <https://www.college-optometrists.org/guidance/clinical-management-guidelines/episcleritis.html>
- <http://www.pulsetoday.co.uk/clinical/eye-clinic-episcleritis/12847904.article>

Eye lid problems

- cks.nice.org.uk/blepharitis
- cks.nice.org.uk/styes
- www.prescriber.co.uk/article/managing-common-eye-problems-general-practice/
- <https://www.college-optometrists.org/guidance/clinical-management-guidelines/trichiasis>
- <https://www.dermnetnz.org/topics/madarosis/>
- <https://www.college-optometrists.org/guidance/clinical-management-guidelines/entropion>
- <https://www.college-optometrists.org/guidance/clinical-management-guidelines/entropion>
- <https://www.moorfields.nhs.uk/condition/ptosis>

Genetic eye problems

- Retinitis Pigmentosa (2019): bestpractice.bmj.com/best-practice/monograph/1144
- www.pulsetoday.co.uk/clinical/clinical-specialties/paediatrics/how-to-spot-zebras-retinoblastoma/20037147.article

Glaucoma

- NICE (2017) *Glaucoma: diagnosis and management* www.nice.org.uk
- cks.nice.org.uk/glaucoma
- NICE. Glaucoma overview. pathways.nice.org.uk/pathways/glaucoma
- <https://cks.nice.org.uk/glaucoma#!prescribingInfo>
- King, A., Azuara-Blanco, A. and Tuulonen, A. (2013) Glaucoma. *BMJ*. **346**(f3518)

Macular degeneration

- <https://cks.nice.org.uk/macular-degeneration-age-related>
- <https://www.macularsociety.org/>
- <http://www.rnib.org.uk/>
- Royal College of Ophthalmologists (2009) *Age-related macular degeneration. Guidelines for management. Royal College of Ophthalmologists* www.rcophth.ac.uk

Malignancy

- Choroidal Melanoma
 - <https://www.gpnotebook.co.uk/simplepage.cfm?ID=697958464>
 - <https://patient.info/doctor/choroidal-melanoma>
- Retinoblastoma
 - www.pulsetoday.co.uk/clinical/clinical-specialties/paediatrics/how-to-spot-zebras-retinoblastoma/20037147.article

Ophthalmic Herpes Simplex

- <https://cks.nice.org.uk/herpes-simplex-ocular>

Ophthalmic Herpes Zoster

- <https://www.college-optometrists.org/guidance/clinical-management-guidelines/herpes-zoster-ophthalmicus-hzo-.html>
- Managing ophthalmic herpes zoster in primary care. *British Medical Journal (Clinical Research Ed.)*. 331:147-151 2005
- <http://www.pulsetoday.co.uk/clinical/eye-clinic/herpes-zoster-ophthalmicus/13256988.article>

Optic Neuritis

- <https://newbp.bmj.com/topics/en-gb/966>
- <https://www.racgp.org.au/afp/2009/october/optic-neuritis/>
- https://www.medicinenet.com/optic_neuritis/article.htm

Orbital infections

- <https://bestpractice.bmj.com/topics/en-gb/734>
- <https://www.college-optometrists.org/guidance/clinical-management-guidelines/cellulitis-preseptal-and-orbital.html>
- <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5905312/>
- <https://www.medicalnewstoday.com/articles/324460.php>

Red eye

- <https://cks.nice.org.uk/red-eye>
- BMJ Best Practice (2017b) *Assessment of Red Eye*. *BMJ*. bestpractice.bmj.com/best-practice/monograph-pdf/496.pdf
- <https://www.guidelinesinpractice.co.uk/eye-ear-nose-and-throat/red-eye-whats-the-diagnosis/454421.article>

Refractive errors

- Management of refractive errors: <https://www.bmj.com/content/340/bmj.c1711>
- Intraocular lens insertion for correction of refractive error, with preservation of the natural lens <https://www.nice.org.uk/Guidance/IPG289>
- Laser correction of refractive error following non-refractive ophthalmic surgery <https://www.nice.org.uk/Guidance/IPG385>

Retinal problems

- Retinal detachment <https://cks.nice.org.uk/retinal-detachment>
- Retinal haemorrhage <http://www.pulsetoday.co.uk/clinical-picture-of-the-week-retinal-haemorrhage/11045836.article>
- Retinal vein occlusion <https://www.moorfields.nhs.uk/condition/retinal-vein-occlusion>
- Retinal artery occlusion <https://emj.bmj.com/content/17/5/324>

Squint

- <https://cks.nice.org.uk/squint-in-children>

Systemic disease effects on vision

- <https://chicago.medicine.uic.edu/departments/academic-departments/ophthalmology-visual-sciences/our-department/media-center/eye-facts/systemic-disease-and-the-eye/>

Thyroid eye disease

- <https://eandv.biomedcentral.com/articles/10.1186/s40662-014-0009-8>
- <https://www.rcophth.ac.uk/2015/07/new-guidelines-for-thyroid-eye-disease/>
- <https://webeye.ophth.uiowa.edu/eyeforum/patients/thyroid-eye-disease.htm>

Uveitis

- <https://eyedoctors.co.nz/services/uveitis/>

Vitreous detachment

- Advice for Floaters and Flashing Lights for primary care https://www.westsuffolkccg.nhs.uk/wp-content/uploads/2013/09/GP-factsheet-Flashing-lights-and-floaters-FINAL_0.pdf