

# Eye Problems

One in a series of curriculum statements produced by  
the Royal College of General Practitioners:

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This curriculum statement has drawn on various national guidelines and policies, current research evidence and the clinical experience of practising general practitioners.

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## Key messages

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- Eye problems are common - around two million people in the UK have a sight problem.
- Eye problems account for 1.5% of general practice consultations<sup>1</sup> in the UK with a rate of 50 consultations per 1000 population per year.
- Eye problems are significant causes of preventable disabilities.
- The general practitioner has a key role as part of the primary healthcare team in the prevention and treatment of eye problems.

# [INTRODUCTION]

There are around two million people in the UK with a sight problem. Among these two million people, around one million are registered or eligible to be registered as blind or partially sighted. Some people are born with sight problems whilst others may inherit an eye condition, such as retinitis pigmentosa, that gets gradually worse as they get older. Some people may lose their sight as the result of an accident, whilst illness can lead to conditions such as diabetic retinopathy. Sight loss is one of the commonest causes of disability in the UK, and is associated with old age more than any other disability.

In the UK some form of glaucoma affects about two in 100 people over the age of 40 and five in 100 people over the age of 75. Some groups are more susceptible to developing glaucoma; these include people of African or Asian origin, people with a family history, people over 40 and people with very short sight (severe myopia). Glaucoma has no symptoms in its early stages and up to 40 per cent of useful sight can be lost before a person realises that he or she has the condition. Screening susceptible adults and regular eye tests are crucial in detecting glaucoma early. Once diagnosed, treatment can be initiated and further sight loss can be minimised.

Age-related eye conditions are the most common cause of sight loss in the UK. Eighty per cent of people with sight problems in the UK are 65 or over. Their eyesight is affected by conditions such as macular degeneration or cataracts.<sup>2</sup>

## **Rationale for this curriculum statement**

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Eye problems account for 1.5% of general practice consultations<sup>1</sup> in the UK with a rate of 50 consultations per 1000 population per year. Eye problems are significant causes of preventable disabilities. The general practitioner (GP) has a key role as part of the primary healthcare team in the prevention and treatment of eye problems.

## **UK health priorities**

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The *National Service Framework for Diabetes in England* delivery strategy aims to help people to manage their own diabetes and help to prevent them from developing the complications of the disease. A key element of the delivery strategy includes the objective that, by 2007, every primary care trust will provide eye screening services for all people with diabetes. This aims to prevent as many as 1000 people a year from going blind or having their sight impaired.<sup>3</sup>

# [LEARNING OUTCOMES]

The following learning objectives describe the knowledge, skills and attitudes that a GP requires when managing patients with eye problems. This curriculum statement should be read in conjunction with the other RCGP curriculum statements in the series. The full range of generic competences is described in the *core* RCGP curriculum statement 1, *Being a General Practitioner*.

## Primary care management

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- Manage primary contact with patients who have an eye problem.
- Coordinate care with other primary care health professionals, optometrists, ophthalmologists, orthoptists, school health services, community eye clinics and social workers to provide effective and appropriate care to patients with eye problems.
- Make timely, appropriate referrals on behalf of patients to specialist services.
- Promote visual wellbeing by applying health promotion and disease prevention strategies appropriately.
- Describe strategies for early detection of eye problems that may already be present but have not yet produced symptoms.

### The knowledge base

#### Symptoms:

Key issues in the diagnosis of eye problems will be eliciting appropriate signs and symptoms, and subsequent investigation, treatment and/or referral of persons presenting with:

#### Disorders of the lids and lacrimal drainage apparatus:

- Blepharitis
- Stye and chalazion
- Entropion and ectropion
- Basal-cell carcinoma
- Naso-lacrimal obstruction and dacryocystitis.

#### External eye disease: sclera, cornea and anterior uvea:

- Conjunctivitis (infective and allergic)
- Dry eye syndrome
- Episcleritis and scleritis
- Corneal ulcers and keratitis
- Iritis and uveitis.

#### Disorders of refraction:

- Cataract
- Myopia, hypermetropia, astigmatism
- Principles of refractive surgery
- Problems associated with contact lenses.

#### Disorders of aqueous drainage:

- Acute angle closure glaucoma
- Primary open angle glaucoma

- Secondary glaucomas.

**Vitreo-retinal disorders:**

- Flashes and floaters
- Vitreous detachment
- Vitreous haemorrhage
- Retinal detachment.

**Disorders of the optic disc and visual pathways:**

- Swollen optic disc: recognition and differential diagnosis
- Atrophic optic disc: recognition and differential diagnosis
- Pathological cupping of the optic disc
- Migraine
- Transient ischaemic attacks (TIAs).

**Eye movement disorders and problems of amblyopic binocularity**

- Diplopia
- Non-paralytic and paralytic strabismus.

**Investigations:**

- Undertake an examination of the eye assessing both structure and function
- Understand the appropriate investigations to exclude systemic disease, e.g. erythrocyte sedimentation rate (ESR) test for temporal arteritis, chest X-ray for sarcoidosis, etc.
- Know the secondary care investigations and treatment including slit lamp, eye pressure measurement.

**Treatment:**

- Understand and be able to explain to the patient about the use of medications including mydriatics, topical anaesthetics, corticosteroids, antibiotics, glaucoma agents
- Removal of superficial foreign bodies from the eye.

**Emergency care:**

Ability to recognise and institute primary management of ophthalmic emergencies and refer appropriately:

- Superficial ocular trauma, including assessment of foreign bodies, abrasions and minor lid lacerations
- Arc eye
- Severe blunt injury, including hyphaema
- Severe orbital injury, including blow-out fracture
- Penetrating ocular injury and tissue prolapse
- Retained intra-ocular foreign body
- Sudden painless loss of vision
- Severe intra-ocular infection
- Acute angle closure glaucoma.

**Prevention:**

This will involve the following risk factors:

- Genetics - family history
- Co-morbidities especially diabetes and hypertension.

## Person-centred care

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- Adopt a person-centred approach in dealing with patients with eye problems in the context of the patient's circumstances.
- Appreciate the importance of the social and psychological impact of eye problems on the patient.
- Identify the patient's health beliefs regarding eye problems and either reinforce, modify or challenge these beliefs as appropriate.
- Communicate the patient's risk of eye problems clearly and effectively in a non-biased manner.
- Respect the autonomy of the patient as a partner during the decision-making process of the consultation.

## Specific problem-solving skills

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- Describe the normal appearance, neurological and motor responses in patients from newborns to the elderly.
- Apply the information gathered during the history-taking and examination, generate a differential diagnosis and formulate a management plan to include assessment of severity and need for referral to secondary care.
- Recognise and institute primary management of ophthalmic emergencies and refer appropriately (see above).
- Demonstrate an understanding of the importance of risk factors in the diagnosis and management of eye problems.
- Demonstrate a reasoned approach to the diagnosis of eye symptoms using history, examination, incremental investigations and referral.
- Describe ocular manifestations of neurological disease, manage appropriately, assess urgency of referral, e.g. hemianopia, nystagmus, manifestations of pituitary and cerebral tumours.
- Describe ocular manifestations of systemic disease, know when to refer to secondary care specialist services, e.g. diabetic retinopathies, retinal vascular occlusions, amaurosis fugax/TIA, macular diseases, hypertensive retinopathy.

## A comprehensive approach

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- Prioritise interventions for multiple risk factors and symptoms of eye problems according to their severity and prognostic risk.
- Manage simultaneously both acute and chronic problems in the patient with eye problems.
- Explain the definition of blindness and partial sightedness, when and how to register a patient, the value of registration and the role of specialist social workers.
- Describe the problems associated with adjustment to chronic visual impairment.
- Help the patient to maximise visual function through management of disease, preventative care and control of environmental factors.

## Community orientation

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- Describe the role of, and appropriate referral to, the community optician.
- Describe the DVLA driving regulations for people with visual problems.
- Facilitate patients' access to sources of social support for the visually impaired child:
  - the 'statementing' process for children with special educational needs
  - schooling requirements and role of peripatetic teachers
  - career guidance for visually impaired children.
- Facilitate patients' access to sources of social support for visually impaired adults:
  - RNIB, talking-book services
  - Social Services
  - local services
  - low vision aids.

## A holistic approach

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- Describe the importance of the social and psychological impact of eye problems on the patient's family, friends, dependants and employers.
- Assess individual and family psycho-dynamics and their effect on patients with ocular disability.
- Describe the impact eye problems may have on disability and fitness to work.
- Describe the long-term care needs of patients with debilitating eye conditions and the necessary environmental adaptation and use of community resources.

## Contextual aspects

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- Describe local counselling services for genetic eye disease.
- Explain the organisation of screening for eye problems in primary and secondary care and how to access it, e.g. diabetic retinopathy, glaucoma, visual acuity testing, squint.
- Describe the services offered by the health promotion agencies, school health service, community eye clinics, orthoptist, optometrist, secondary care, social services and voluntary agencies, and know when referral is appropriate.

## Attitudinal aspects

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- Be able to balance the autonomy of patients with visual problems and public safety.
- Recognise that patients with visual impairment may have difficulty receiving written information and accessing healthcare services and implement measures to overcome these obstacles to effective health care.
- Ensure that patients with visual impairment are treated with dignity and respect.

## Scientific aspects

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- Describe and be able to implement the key national guidelines that influence healthcare provision for eye problems (e.g. *National Service Framework for Diabetes*).

## Psychomotor skills

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Demonstrate complete examination of the eye, assessing both structure and function, including:

- Measurement of visual acuity
- Pinhole testing
- External examination of the eye
- Eversion of eyelid
- Examination of the pupil and assessment of the red reflex
- Assessment of ocular movements and cover testing
- Visual field testing by confrontation
- Direct ophthalmoscopy
- Colour vision testing
- Fluorescein staining of the cornea.

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## [FURTHER READING]

### Examples of relevant texts and resources

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- Bezan DJ and LaRussa FP. *Differential Diagnosis in Primary Eye Care (1st edn)* London: Butterworth–Heinemann, 1999
- British Medical Association and Royal Pharmaceutical Society of Great Britain. *The British National Formulary* London: BMJ Books, updated annually
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- Sheldrick JH, Wilson AD, Vernon SA, Sheldrick CM. Management of ophthalmic disease in general practice *Br J Gen Pract* 1993; 43(376): 459–62
- Warrell D, Cox TM, Firth JD, Benz EJ (eds). *Oxford Textbook of Medicine (4th edn)* Oxford: Oxford University Press, 2004

### Web resources

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#### **National ~~Electronic~~ Library for Health and National ~~Electronic Library for~~ Public Health ~~Specialist Library~~**

The aim of the National ~~Electronic~~ Library for Health (NeLH) is to provide clinicians with access to the best current know-how and knowledge to support health care related decisions. Patients, carers and the public are also welcome to use the site, because the NeLH is open to all. The ultimate aim is for the Library to be a resource for the widest range of people both directly and indirectly.

The main priority for the NeLH is to help the NHS achieve its objectives. However, it is also aimed at those healthcare professionals who are working in the private sector where common standards should apply. For example, the National Screening Committee is not only an NHS advisory committee, but its mission is also to promote the health of the whole population and its recommendations are relevant to the private sector. Part of the content of the NeLH such as Clinical Evidence and Cochrane Library is licensed from commercial providers. There are two other groups of health and care professionals whose needs will also be met by the NeLH – those

working in public health and in social care. The ~~National Electronic Library for~~ Public Health ~~Specialist Library~~ is intended for all public health professionals, many of whom work in local government. It has been developed by the Health Development Agency.

~~[www.nelh.nhs.uk/new\\_users.asp](http://www.nelh.nhs.uk/new_users.asp)~~ [www.library.nhs.uk](http://www.library.nhs.uk)

~~[www.phel.gov.uk/](http://www.phel.gov.uk/)~~ [www.library.nhs.uk/publichealth/](http://www.library.nhs.uk/publichealth/)

### **Royal College of Ophthalmologists**

[www.rcophth.ac.uk/](http://www.rcophth.ac.uk/)

### **Royal National Institute for the Blind**

The Royal National Institute for the Blind (RNIB) is the UK's leading charity helping anyone with a sight problem. The RNIB has worked with blind and partially sighted people for over a century with the specific aims of improving lives, increasing independence and eliminating preventable sight loss.

Royal National Institute of the Blind

105 Judd Street

London WC1H 9NE

Telephone 020 7388 1266

RNIB Cymru

Trident Court

East Moors Road

Cardiff

CF24 5TD

Telephone 02920 45 04 40

RNIB Northern Ireland

40 Linenhall Street

Belfast

BT2 8BA

Telephone 028 9032 9373

RNIB Scotland

Dunedin House

25 Ravelston Terrace

Edinburgh

EH4 3TP

Telephone 0131 311 8500

[www.rnib.org.uk/xpedio/groups/public/documents/code/InternetHome.hcsp](http://www.rnib.org.uk/xpedio/groups/public/documents/code/InternetHome.hcsp)

### **World Health Organization**

WHO Prevention of Blindness

[www.who.int/blindness/en/](http://www.who.int/blindness/en/)

# **[PROMOTING LEARNING ABOUT EYE PROBLEMS]**

## **Work-based learning – in primary care**

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Primary care is an ideal setting for learning about eye problems both in the surgery and in opticians' surgeries. In the GP surgery, diabetic clinics and cardiovascular clinics provide excellent opportunities for examining the eye and discussing risk factors and co-morbidities.

The optician's surgery is an ideal learning environment for the specialty registrar (GP). Opticians are experts at examining the eye by direct ophthalmoscopy, use of the slit lamp and by using other equipment for testing visual fields and intra-ocular pressure. It is an excellent environment for discussing the impact of chronic eye problems and issues of screening and prevention.

## **Work-based learning – in secondary care**

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Specialty registrars (GP) should be able to attend secondary care-based ophthalmology clinics to learn about both acute and chronic conditions. It is also useful for the specialty registrar to attend an operating session to gain an understanding of cataract surgery, perhaps by accompanying a patient on his or her journey.

## **Non-work-based learning**

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Deaneries should work with their local ophthalmology departments to provide appropriate teaching sessions on eye problems outlined in this statement.

## **Learning with other healthcare professionals**

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Opticians are key members of the primary healthcare team and are becoming increasingly involved in working in partnership with GPs in the management of diabetic patients and in screening for glaucoma and other eye problems. Specialty registrars should attend local opticians to gain a better understanding of their skills and their contribution to primary care teams.

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## [REFERENCES]

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- <sup>1</sup> Sheldrick JH, Wilson AD, Vernon SA, Sheldrick CM. Management of ophthalmic disease in general practice *Br J Gen Pract* 1993; 43(376): 459–62
- <sup>2</sup> Royal National Institute for the Blind website, [www.rnib.org.uk/xpedio/groups/public/documents/code/InternetHome.hcsp](http://www.rnib.org.uk/xpedio/groups/public/documents/code/InternetHome.hcsp) [accessed January 2007]

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