Commissioning better eye care

Clinical commissioning guidance from
The College of Optometrists and The Royal College of Ophthalmologists

Urgent eye care
Version: 1
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Joint College of Optometrists and Royal College of Ophthalmologists clinical commissioning guidance

This guidance is to help those designing and commissioning eye care improve the value of their services.

It was produced by the Colleges using a template provided by the Department of Health’s Right Care team led by Professor Sir Muir Gray. In addition to the Right Care team, the Royal College of General Practitioners, the National Association of Primary Care, the UK Vision Strategy and partners in the eye health sector have supported the Colleges to produce this guidance.

It is arranged in to the following sections:

- Summary and recommendations
- Introduction
- What is urgent eye care?
- What are the causes of and scope of prevention for urgent eye care?
- How many people have urgent eye care?
- What are the best value diagnostic tests?
- What are the best value treatments?
- How can individuals and carers be best supported long term?
- How to compare services based on activity, quality and outcome
- What are the elements of a system of care for a population?

Summary: urgent eye care

- An urgent eye condition is any eye condition that is of recent onset and is distressing or is believed by the patient, carer or referring health professional to present an imminent threat to vision or general health. Many eye conditions classified as urgent by this definition can be managed in one or two consultations without recourse to complex diagnostic or treatment facilities.
- Many patients treated by the urgent eye care service have non-urgent conditions, particularly patients who self-refer to eye casualty.
- The incidence of presentations to eye casualty services has been estimated at 20-30 per 1000 per year. Most hospital urgent eye care services report that they struggle to keep pace with demand and that a significant proportion of patients seen in these services have conditions which could be diagnosed and managed in a primary care setting by optometrists.

Recommendations

- Minimise visual loss from sight threatening conditions, particularly trauma, through prompt triage, diagnosis and treatment.
- Ensure those diagnosing urgent eye conditions have a slit lamp and the necessary skills to use it.
- Ensure that there is adequate availability of urgent (same day or next day) appointments in the primary care service and educate the public and referring clinicians to use them as the first port of call for urgent eye conditions to achieve a significant shift of urgent eye care from hospital to primary care settings.
What is an urgent eye condition?

An urgent eye condition is any eye condition that is of recent onset and is distressing or is believed by the patient, carer or referring health professional to present an imminent threat to vision or to the general health.

Some acute eye conditions are sight or life threatening and require immediate specialist attention. However many common acute eye conditions, whilst unpleasant or distressing are not sight or life threatening and can be diagnosed and managed safely without the need for complex diagnostic equipment or treatment.

Emergency eye care is provided by GPs, optometrists, A&E departments, minor injury units, eye casualty departments and rapid-access outpatient clinics.

What are the causes of and scope for prevention of urgent eye conditions?

There is limited scope for preventing urgent eye conditions.

Eye trauma is potentially preventable. Eye protection could prevent injuries from sport or DIY but is not widely worn. Replacing drinking glasses with plastic ones can prevent eye injuries from alcohol-related assaults. Public health campaigns to raise awareness of the risk of eye injuries from known hazards such as fireworks may prevent eye injuries. However, there is limited scope for preventing non-traumatic urgent eye conditions. Good contact lens care such as good hygiene, frequently replacing cases and not wearing lenses overnight or when swimming or showering can reduce the risk of infectious keratitis.

However, as valuable as these interventions are, they cover a small proportion of urgent eye conditions and the great majority cannot be predicted or prevented. Efforts should be focused on minimising suffering and sight loss resulting from urgent eye conditions instead. Early diagnosis, appropriate triage and prompt treatment are key to preventing sight loss from eye emergencies, such as retinal detachments.

Table 1 Estimated A&E Visits, Hospitalisations for ocular trauma 2007-8

<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>Work</td>
<td>69.9</td>
<td>83,678</td>
<td>27,405</td>
<td>1130</td>
</tr>
<tr>
<td>Leisure activity</td>
<td>18.3</td>
<td>21,907</td>
<td>7,175</td>
<td>296</td>
</tr>
<tr>
<td>Sport</td>
<td>2.3</td>
<td>2,753</td>
<td>902</td>
<td>37</td>
</tr>
<tr>
<td>Assaults</td>
<td>1.9</td>
<td>2,275</td>
<td>745</td>
<td>31</td>
</tr>
<tr>
<td>Contact lens related injury</td>
<td>2.3</td>
<td>2,753</td>
<td>902</td>
<td>37</td>
</tr>
<tr>
<td>Unknown</td>
<td>5.3</td>
<td>6,345</td>
<td>86</td>
<td>37</td>
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<tr>
<td>Total</td>
<td>100</td>
<td>119,712</td>
<td>39,206</td>
<td>1,616</td>
</tr>
</tbody>
</table>
How many people have urgent eye conditions?

Data on eye emergencies are not routinely collected. There has been no effort to count systematically the number of people suffering from or presenting with urgent eye conditions. Such an assessment would include all patients with urgent eye conditions seen and treated by eye casualty units, GP practices, community optometry practices, community pharmacists and other hospital eye services. However, a number of observational studies have attempted to estimate the incidence of urgent eye conditions through consultation rates:

Consultation rates for eye problems

*Dart JK 1986*²
Eye disease 57 per 1000 per year

*McDonnell PJ 1988*³
Patients with ocular symptoms 66 per 1000 per year

*Sheldrick JH et al 1992*⁴
Eye Problems (total) 71.8 per 1000 per year
Eye problems presenting to GP 49.2 per 1000 per year
Eye problems presenting to Eye Casualty 22.7 per 1000 per year

Males (total) 68.7 per 1000 per year
Males presenting to GP with eye problem 39.8 per 1000 per year
Males presenting to Eye Casualty 28.9 per 1000 per year

Female (total) 74.2 per 1000 per year
Females presenting to GP with eye problem 57.5 per 1000 per year
Females presenting to Eye Casualty 16.7 per 1000 per year

*Sheldrick JH et al 1993*⁵
New eye problems presenting to GPs 45.3 per 1000 per year

*Bhopal RE et al 1993*⁶
All eye problems 17.2 per 1000 per year
Injuries 7.2 per 1000 per year
Inflammation 5.9 per 1000 per year

Male 3.5 per 1000 per year
Female 1.8 per 1000 per year

*RCGP Annual Prevalence Report 2007*⁷
Eye & Adnexa Disorders (360-379) 52.2 per 1000 per year

Eye casualty
The mean age of those attending eye casualty departments has been estimated at 40 to 47 years⁸,⁹,¹⁰, with the average age of those attending for ocular trauma being
The ratio of male to female attendance for urgent eye conditions can range from 1:1 to 3:1. However those with ocular trauma are overwhelmingly likely to be male. The majority of those attending eye casualty services will have self-referred. A significant minority seen in eye casualty will be referred directly from their GP. A smaller number will have been referred directly from their optometrist. Referrals to eye casualty departments also originate from accident and emergency departments, other hospitals and community workers.

### Table: referral origin

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Self Referral</td>
<td>64%</td>
<td>58.20%</td>
<td>89.90%</td>
<td>56%</td>
<td></td>
</tr>
<tr>
<td>GP Referral</td>
<td>14.70%</td>
<td>20.50%</td>
<td>7.30%</td>
<td>30.00%</td>
<td></td>
</tr>
<tr>
<td>Optom Referral</td>
<td>20%</td>
<td>1.10%</td>
<td>0.70%</td>
<td>1.00%</td>
<td></td>
</tr>
<tr>
<td>Referral from A&amp;E</td>
<td></td>
<td></td>
<td>8.60%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hospital Referral</td>
<td>1.30%</td>
<td>5.40%</td>
<td>0.90%</td>
<td>0.80%</td>
<td></td>
</tr>
<tr>
<td>Work/School</td>
<td></td>
<td></td>
<td>11.40%</td>
<td>1.20%</td>
<td>0.20%</td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
<td>3.50%</td>
<td>1.20%</td>
<td>1.30%</td>
</tr>
<tr>
<td>n</td>
<td>150</td>
<td>2068</td>
<td>8092</td>
<td>6576</td>
<td></td>
</tr>
<tr>
<td>EC</td>
<td>A&amp;E</td>
<td>EC/OPD/A&amp;E</td>
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<td>EC</td>
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</tr>
</tbody>
</table>

EC= Eye casualty  GP=General Practitioner  A&E=Accident and emergency  OPD=Ophthalmology outpatient clinic

**Accident and emergency**

‘Eye emergencies’ are estimated to make up 1.46-6% of accident and emergency attendances of which 89.7% will be self referrals. 51-65.6% of the case load will be related to trauma, 11-27% will be related to infection/inflammation.

Male to female ratios of attendance is around 3:1 with a preponderance of young male new attendees. Chronic and recurrent problems are generally in the older female populations.

**General practice**

1.5-2% of GP consultations may be eye related.

**What are the best value diagnostic tests for urgent eye conditions?**

Prompt, accurate diagnosis and triage are vital to minimising harm and sight loss from urgent eye conditions. They can improve the value of the pathway by separating out acute, emergency problems from comparatively simple cases. Diagnosing all but a small number of urgent conditions requires a slit lamp and the skills to use it.

The availability of slit lamps will therefore play a fundamental role in shaping local services. Taking a careful history, measuring visual acuity, performing a basic external examination of the eye and examining the fundus with a direct ophthalmoscope are of
value in forming a diagnostic hypothesis. Where they suggest a non-sight threatening or self-limiting condition, it may be reasonable to treat the patient on the basis of this hypothesis without a more detailed examination. However, most health care professionals who lack a slit lamp or experience of using it have a low threshold for referring patients with urgent eye conditions to an optometrist or ophthalmologist. When patients with suspected conjunctivitis present at a GP surgery that does not have a slit lamp, fluorescein can still be used to identify corneal problems.

Expertise in the use of the slit lamp is not widespread outside community optometric practices and hospital eye departments, although a small number of GPs have an interest in ophthalmology and some hospital accident and emergency departments possess a slit lamp.

GPs do however provide first contact care for many urgent eye conditions without a slit lamp. Also optometrists who are not prescribers often refer patients to GPs for prescriptions. GPs have welcomed schemes that allow them to refer patients to optometrists for urgent, same day appointments rather than only having the opportunity to refer to the hospital eye service.

Services, such as eye casualty departments, that deal with complex and emergency conditions should be able to perform irrigation of the ocular surface for chemical injuries. They should have access to equipment for obtaining microbiology and virology specimens from the eye (conjunctival swabs and corneal scrapes) and plates for culture should be available. Microbiology services should be able to receive and process specimens and provide interpretation of urgent gram stains. Facilities for urgent blood tests such as erythrocyte sedimentation rate and blood glucose should be available. B-scan ultrasound is very useful particularly for assessing patients where the view of the fundus is compromised. This enables decisions to be made about which patients need urgent vitreoretinal services and which can be managed conservatively. Access to X-ray and neuro-imaging facilities are important for hospital eye services as well as carotid doppler and TIA/stroke services. In addition, gonioscope lenses for anterior chamber angle assessment and indirect ophthalmoscope (20 diopatre lens with appropriate viewing equipment) should be available.

A facility for 24/7 access to assessment by an ophthalmologist is necessary for a small proportion of ophthalmic emergencies.

**What are the best value treatments for urgent eye conditions?**

Urgent eye conditions are mostly non-acute and relatively straightforward to treat but a significant minority are emergencies that cause acute distress and are sight threatening. As many as 78.1% of cases attending eye casualty are deemed ‘non serious’, with 50-70% of cases not constituting either an accident or an emergency, a figure supported by patient feedback.
### Table: typically presenting urgent eye conditions

<table>
<thead>
<tr>
<th>Condition</th>
<th>Study (Reference Year)</th>
<th>Condition</th>
<th>Study (Reference Year)</th>
<th>Condition</th>
<th>Study (Reference Year)</th>
<th>Condition</th>
<th>Study (Reference Year)</th>
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<tbody>
<tr>
<td>Inflammation</td>
<td>12% Edmunds RS et al 1997</td>
<td>Infection</td>
<td>35% Flitcroft DI et al 1995</td>
<td>Infection/Inflammation</td>
<td>24% Sheldrick JH et al 1993</td>
<td>Trauma</td>
<td>24% McDonnell 1988</td>
</tr>
<tr>
<td>Infection</td>
<td>14% Flitcroft DI et al 1995</td>
<td>Infection/Inflammation</td>
<td>32.30% Bhopal RS et al 1993</td>
<td>Trauma</td>
<td>24% McDonnell 1988</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Infection/Inflammation</td>
<td>21.70% Edwards 1988</td>
<td>Trauma</td>
<td>45.50% Jones NP et al 1986</td>
<td>[12.2%] Chiapella AP et al 1985</td>
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</tr>
<tr>
<td>Trauma</td>
<td>44.10% Bhopal RS et al 1993</td>
<td>Conjunctivitis</td>
<td>41.10% Bhopal RS et al 1993</td>
<td>Conjunctivitis</td>
<td>44% Bhopal RS et al 1993</td>
<td>Conjunctivitis</td>
<td>[22.2%] Bhopal RS et al 1993</td>
</tr>
<tr>
<td>Meibomian cyst</td>
<td>8.40% Bhopal RS et al 1993</td>
<td>Blepharitis</td>
<td>5.40% Bhopal RS et al 1993</td>
<td>Blepharitis</td>
<td>5.40% Bhopal RS et al 1993</td>
<td>Blepharitis</td>
<td>[2.7%] Bhopal RS et al 1993</td>
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<tr>
<td>Iritis</td>
<td>0.90% Bhopal RS et al 1993</td>
<td>Corneal Ulcer</td>
<td>[2.8%] Bhopal RS et al 1993</td>
<td>Corneal Ulcer</td>
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<td>Corneal Ulcer</td>
<td>[2.1%] Bhopal RS et al 1993</td>
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<td>Post operative</td>
<td>10% Bhopal RS et al 1993</td>
<td>Post operative</td>
<td>10% Bhopal RS et al 1993</td>
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<td>10% Bhopal RS et al 1993</td>
<td>Post operative</td>
<td>10% Bhopal RS et al 1993</td>
</tr>
<tr>
<td>Dry Eyes</td>
<td>4.50% Bhopal RS et al 1993</td>
<td>Dry Eyes</td>
<td>4.50% Bhopal RS et al 1993</td>
<td>Dry Eyes</td>
<td>4.50% Bhopal RS et al 1993</td>
<td>Dry Eyes</td>
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</tr>
<tr>
<td>Other</td>
<td>16% Bhopal RS et al 1993</td>
<td>Other</td>
<td>16% Bhopal RS et al 1993</td>
<td>Other</td>
<td>16% Bhopal RS et al 1993</td>
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<td>16% Bhopal RS et al 1993</td>
</tr>
<tr>
<td>Normal</td>
<td>12% Bhopal RS et al 1993</td>
<td>Normal</td>
<td>12% Bhopal RS et al 1993</td>
<td>Normal</td>
<td>12% Bhopal RS et al 1993</td>
<td>Normal</td>
<td>12% Bhopal RS et al 1993</td>
</tr>
<tr>
<td>No Diagnosis</td>
<td>8% Bhopal RS et al 1993</td>
<td>No Diagnosis</td>
<td>8% Bhopal RS et al 1993</td>
<td>No Diagnosis</td>
<td>8% Bhopal RS et al 1993</td>
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<td>8% Bhopal RS et al 1993</td>
</tr>
<tr>
<td>n</td>
<td>130 Bhopal RS et al 1993</td>
<td>n</td>
<td>50 Bhopal RS et al 1993</td>
<td>n</td>
<td>2068 Bhopal RS et al 1993</td>
<td>n</td>
<td>8092 Bhopal RS et al 1993</td>
</tr>
</tbody>
</table>

EC= Eye casualty  GP=General Practitioner  A&E=Accident and emergency  OPD=Ophthalmology outpatient clinic

[%] are percentages from the relevant published dataset
A significant number of attendees are discharged on the day of presentation with no further follow up. Follow up rates vary, however in general they are similar to the numbers requiring subspecialty review. Those attending with an ‘eye emergency’ are infrequently admitted.

<table>
<thead>
<tr>
<th>Study</th>
<th>EC</th>
<th>PCC</th>
<th>OPD/A&amp;E</th>
<th>EC</th>
<th>EC</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Discharged first visit</td>
<td>62%</td>
<td>49%</td>
<td>63.30%</td>
<td>36.70%</td>
<td>77.80%</td>
<td>79%</td>
</tr>
<tr>
<td>Follow up</td>
<td>7.20%</td>
<td>6%</td>
<td>26.70%</td>
<td>-</td>
<td>21%</td>
<td>13.70%</td>
</tr>
<tr>
<td>Previous attendance</td>
<td>12.40%</td>
<td>-</td>
<td>-</td>
<td>23.70%</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Referral to subspeciality [subsequently]</td>
<td>30.30%</td>
<td>36.70%</td>
<td>19.10%</td>
<td>8.50% [32%]</td>
<td>5%</td>
<td></td>
</tr>
<tr>
<td>Surgery [subsequently]</td>
<td>18%</td>
<td>-</td>
<td>-</td>
<td>[1%]</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Admission [subsequently]</td>
<td>0.80%</td>
<td>2.80%</td>
<td>0.90% [2%]</td>
<td>2.70%</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Table: disposal rates
EC= Eye casualty  GP=General Practitioner  A&E=Accident and emergency  OPD=Ophthalmology outpatient clinic  PCC = Primary care clinic

Patients who present to eye casualty are likely to be treated by a range of health care professionals from nurse practitioners, optometrists, GP trainees, junior and senior ophthalmology trainees and consultant ophthalmologists. A significant number of patients will also present to their GP, eye related problems make up around 2% of GP consultations.

Urgent eye conditions may constitute 1.46-6% of cases within accident and emergency departments. With a significant number of cases of trauma. Although many accident and emergency departments possess a slit lamp, confidence and proficiency in its use amongst emergency physicians is patchy.

GPs will manage most of the ophthalmic problems that present to them, in spite of majority having uncertainties about managing eye problems. In the PEAR scheme in Wales, 60% of referrals to the scheme from GPs were managed within optometric practice, 23% were re-referred to the GP and 17% were referred to HES. The most common diagnoses GPs make are for anterior segment problems. However, diagnoses of infective and allergic conjunctivitis, blepharitis and dry eyes are often confused and although diagnostic uncertainty is likely to increase the need for follow up appointments it is unlikely to result in serious or systemic complications. Cases where
serious ocular or health implications result from diagnostic uncertainty are attributed to lack of visual acuity testing and equipment levels\textsuperscript{19}.

While diagnosis and treatment by a consultant ophthalmologist is seen as the ‘gold standard’, many patients will be managed by more junior staff with access to senior advice and second opinion\textsuperscript{6,30}. Nurse practitioners and optometrists have shown good agreement with diagnosis, treatment and management strategies of ophthalmologists in eye casualty settings\textsuperscript{8,10,13,17,31}. Many cases can be managed without the input of an ophthalmologist\textsuperscript{10,13,17,24,31}. For these health care practitioners, therapeutic prescribing range\textsuperscript{10} and protocol\textsuperscript{28,32} have been suggested as limiting factors to scope of practice. Nurse practitioners in eye casualty frequently use Patient Group Directives (PGD) which delegate limited prescribing responsibilities for the treatment of specified groups of patients with a specific diagnoses according to a local protocol\textsuperscript{33}. Optometrists can be supplementary prescribers or independent prescribers or can also operate under a PGD.

\begin{table}
\centering
\begin{tabular}{|l|l|l|l|}
\hline
Study & Professional group & Conditions managed & Level of agreement \\
\hline
Banerjee S et al 1998 & Nurse practitioners and ophthalmologists & Corneal foreign bodies, Corneal abrasions, Conjunctivitis, Blepharitis, Trichiasis, Dry Eyes, Subconjunctival haemorrhage & 96\% \\
Hau S et al 2006 & Optometrists and ophthalmologists & Randomly selected cases presenting to eye casualty. & 89.3\% diagnostic agreement, 90.7\% management agreement \\
Sheldrick JH 1992 & GPs and ophthalmologists & Eye conditions presenting to GPs in practice & 58\% \\
\hline
\end{tabular}
\caption{diagnostic accord}
\end{table}

A significant number of optometrists are managing a range of common ocular conditions that are frequently seen in eye casualty departments\textsuperscript{32}. While optometrists refer fewer cases of suspected anterior segment disease than GPs\textsuperscript{26,29} they tend to refer more of those with suspected intraocular problems\textsuperscript{26}.

**How can patients and carers be best supported for urgent eye conditions?**

The majority of those who attend eye casualty through ‘great concern’ will have had symptoms for weeks before attending while just under a third consider themselves to be "an emergency"\textsuperscript{24}. There is evidence that patients often use an eye casualty service (particularly one which permits self-referral) because it is accessible and convenient or because waiting times for elective appointments are perceived to be too long\textsuperscript{24}. However, a significant number, when asked, would have preferred to be seen outside the
eye casualty environment\textsuperscript{23}. Patients may rate immediate treatment and reassurance more highly than diagnosis as the most important aspect of their urgent eye care\textsuperscript{23}.

Nearly half of patients attending eye casualty are accompanied by a relative or companion\textsuperscript{23,30}, but this falls to around a quarter when patients are seen away from the eye casualty setting\textsuperscript{30}. When urgent eye care services are placed in the community, the number of patients travelling by foot increases, traveling times and traveling distances reduce as do patients' travel costs\textsuperscript{26,30}.

The scope for patients to look after urgent eye conditions themselves is very limited. There is a great deal of information in the public domain (particularly on the internet) about common eye conditions, though it is of variable quality. It is not however clear whether the use of such information reduces or increases the likelihood of self-referral for eye conditions which are perceived to be urgent.

Chloramphenicol eye drops and ointment were reclassified from prescription-only medications to pharmacy medications in 2009, but it is not yet clear whether this has reduced the number of presentations to GPs, optometrists or hospital eye departments for bacterial conjunctivitis. There is strong evidence that chloramphenicol is ineffective in treating acute conjunctivitis which should instead be left to clear up on its own without antibiotics\textsuperscript{34}.

Patient information leaflets can be a useful source of information.

**What are the elements of a sustainable system of care for urgent eye conditions?**

Patients with urgent eye conditions should be assessed and their treatment initiated within 24 hours, or at most within 48 hours. The most important component of a sustainable system of care for urgent eye conditions is therefore the ability to offer urgent appointments which include slit lamp examination as close as possible to the point of first contact for the condition.

It appears that the perceived **urgency** of an eye condition is a much stronger determinant of referral (or self-referral) patterns than the perceived **seriousness** of the eye condition\textsuperscript{24} so hospital eye departments treat large numbers of patients whose conditions could easily be treated elsewhere. However, attempts to reduce the workload of hospital eye departments by increasing the provision of primary eye care clinics for minor non-urgent eye conditions are unsuccessful if large numbers of patients with minor eye conditions continue to bypass the primary care service on the grounds of perceived urgency and attend emergency departments.

Demand on hospital eye emergency services is thought to be increasing. Evidence from London, shows that over a five year period up to 2011, demand at two major eye casualty units increased by seven and ten per cent year on year\textsuperscript{33}. The reasons for increased use of emergency services are complex. In areas with poor service provision and high unmet need provision of community services may lead to greater uptake as access to care improves but this may increase costs for commissioners without reducing demand for the hospital eye service.

There are however a number of innovative services which provide urgent triage and treatment for eye conditions in the community. Areas which have developed these
services tend to be those which have scattered rural populations. It is important that everyone involved in the urgent care system understands it so that they are able to signpost patients appropriately. This includes GPs, optometrists and the hospital eye service but also community pharmacists and NHS 111. The Grampian Eye Health Network and the Welsh PEAR scheme are two good case studies of innovative urgent eye care systems. They both provide urgent triage and treatment for eye conditions in the community where patients and health care professionals are successfully encouraged to view those services as the normal first port of call.

**Examples of innovative systems for urgent conditions**

**NHS Grampian**

*Formation of the Grampian Eye Health Network*

The walk-in service at Aberdeen's eye department was increasingly being used by the public for non-urgent eye problems. The level of walk-ins was at 6,000 annually and increasing. This led to long travel times and waits for patients, a chaotic environment and specialist resources being used to treat non-urgent cases. An audit demonstrated that only 9% of patients coming to the eye department required referral to the hospital eye clinic; over 90% could have been treated by someone other than a hospital doctor.

*Improvements*

Following input from all stakeholders (Local Board Advisory Groups, Community Health Partnerships, Community Forums) and to enable partnership and patient involvement, the Grampian Eye Health Network was formed which includes all optometry practices in Grampian and Shetland.

A 24 hour telephone Eye Health Network Clinical Decision/Support Line was established, staffed by specialist nurses and doctors. Afternoon consultant-led eye-assessment clinics were established and optometrist-led support sessions were formed to ensure continuous learning, high quality care. Using Patient Group Directives enabled more efficient prescribing of medications.

*Outcomes*

- There has been a significant shift of care in to the community
- Only patients who require referral to the hospital eye clinic are booked into the eye assessment clinic
- Patients are now seen as locally as possible reducing travel time
- Lengthy waits are avoided
- NHS resources are now used more effectively

**Wales PEARs (Primary Eyecare Acute Referral Scheme) model**

*Optometric primary care intervention service to facilitate the early assessment of acute ocular conditions.*

Patients are seen within 24hrs of making an appointment and are self-referred or directed to the service by a GP. Optometrists are paid under an enhanced services contract to detect, and in some cases manage, urgent conditions. Many GPs lack the equipment, experience and skills to diagnose and treat eye conditions so taking advantage of community optometrists' expertise can enable patients to remain in primary care and potentially free up some GP resources.
**Costs per consultation:**
- PEARS £38.00
- GP consultation £22.00
- Hospital eye service (HES) consultation £69.80

**Overview:**
- Of 4881 PEARS examinations, 3692 were self-referred
- 1416 had a presenting symptom of unilateral red eye (1276 of these were managed in optometric practice or in conjunction with the GP)
- 986 had the presenting symptom of ‘ocular discomfort’
- 601 had the presenting symptoms of ‘flashes and floaters’

**Outcome of referrals to HES from PEARS:**
- 392 patients were referred
- 295 (75%) were judged to have been appropriately referred by the optometrist
- 284 (72%) were judged to have been correctly diagnosed by the optometrist
- 49 of 97 (51%) of ‘inappropriate referrals’ were for posterior vitreous detachment (PVD)
- 45 of posterior vitreous detachment referrals were correctly diagnosed, but 27 had been referred solely on the basis of local protocols
- 34 had non-sight threatening problems
- 14 were normal.

**Equity of access**
Of 6432 individuals 87.4% travelled less than 5 miles to an optometrist.

**Service models and training**
Although not within the scope of this document, commissioners are also urged to consider the impact commissioning decisions can have on training opportunities for the medical and non-medical workforce delivering these services. It is hoped that the guiding principles with different examples of delivering urgent eye care services can be used to help commissioners and providers provide the best service for their local needs.
How to compare services based on activity, quality and outcome

At present, few commissioners can compare their urgent care service in terms of activity, quality and outcomes. Compiling an annual quality report for urgent care is the first step to understanding these issues. Existing software can be incorporated in to clinical services to support this.

The production of an annual quality report as a collaborative initiative between commissioners, providers and other stakeholders such as patients is one way to ensure that there is an effective and safe population-based framework for the urgent care. Commissioners can then use the report to inform commissioning decisions.

Objectives and outcomes in a high value system of care

This section recommends objectives for a system of urgent care and how they should be measured with a view to being published in an annual report for the service.

<table>
<thead>
<tr>
<th>Objectives</th>
<th>Criteria</th>
<th>Outcomes</th>
<th>Standards</th>
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<tbody>
<tr>
<td>To minimise the risk of preventable sight impairment as a result of urgent eye conditions</td>
<td>Serious incident reports involving sight loss, new Certificate of Visual Impairment issued where the onset of sight impairment seems to have been sudden or unexpected</td>
<td>Preventable permanent sight impairment due to urgent eye conditions should prompt a root cause analysis and may constitute a reportable serious incident.</td>
<td>Providers should include a review of new Certificates of Visual Impairment by primary diagnosis as a routine part of clinical audit.</td>
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<td>To provide accessible and timely diagnosis and treatment (or where appropriate, reassurance) to people presenting with urgent eye conditions.</td>
<td>Nurse practitioners in eye casualty frequently use Patient Group Directives (PGD) which delegate limited prescribing responsibilities for the treatment of specified groups of patients with a specific diagnoses according to a local protocol. Optometrists can operate under a PGD and some have qualified as independent prescribers.</td>
<td>The patient should normally be provided with a printed discharge summary at the end of a consultation which states the diagnosis, treatment, advice and follow up arrangements. A copy should be sent to the patient's GP.</td>
<td>90% of patients are provided with a discharge summary at the end of the consultation. 90% of discharge summaries are sent to the patient’s GP within 48 hours</td>
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<tr>
<td>To provide information promptly to the patient’s GP or referring clinician regarding an attendance for an urgent eye condition</td>
<td>Audit of discharge summaries from the urgent care service</td>
<td>The patient should normally be provided with a printed discharge summary at the end of a consultation which states the diagnosis, treatment, advice and follow up arrangements. A copy should be sent to the patient’s GP.</td>
<td>90% of patients are provided with a discharge summary at the end of the consultation. 90% of discharge summaries are sent to the patient’s GP within 48 hours</td>
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<td>To provide appropriate patient information</td>
<td>e.g. patient information leaflets for patients with posterior vitreous detachments</td>
<td>Patient should normally be given a patient information leaflet with relevant instructions e.g. how to use their medication, and which symptoms should make the patient represent to ophthalmic care.</td>
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<td>To provide and efficient service &amp; appropriate access to secondary care</td>
<td>Audit disposal of referrals, % discharged on first visit, % referred to secondary care (hospital eye service), appropriateness of referral and any significant untoward events e.g. misdiagnosis and poor patient outcome</td>
<td>80% of patients with a patient information leaflet for their condition e.g. blepharitis, posterior vitreous detachment, marginal keratitis, recurrent corneal erosion</td>
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<td></td>
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<td>60% of patients should be discharged at first visit</td>
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<td>80% of patients should be diagnosed accurately</td>
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<td>Lessons should be learned from patients with poor outcomes and appropriate steps taken to reduce the chance of recurrence e.g. education or training issues addressed</td>
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<tr>
<td></td>
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<td>No. % of patients discharged at first visit.</td>
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<td>No. % followed up in primary care.</td>
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<td>No % referred to secondary care</td>
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<td>Diagnostic accord</td>
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<td></td>
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<td>Poor patient outcomes resulting from inappropriate management e.g. delayed diagnosis, inappropriate use of topical steroids</td>
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<tr>
<td></td>
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<td>Lessons should be learned from patients with poor outcomes and appropriate steps taken to reduce the chance of recurrence e.g. education or training issues addressed</td>
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Acknowledgements and feedback

This guidance was produced by a working group convened by The College of Optometrists and The Royal College of Ophthalmologists. The working group will produce guidance for commissioners of the following eye care services: age-related macular degeneration, cataract, diabetic retinopathy, glaucoma, low vision, oculoplastics and urgent eye care.

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