Clinical Guidance Section

Glaucoma & Ocular Hypertension Cataract
Age-related Macular Degeneration (AMD)
Retinal breaks & detachments

10. Ocular Hypertension (OHT) / Glaucoma suspect (GS) monitoring

10.1 Introduction

As detailed in Section 6.1 above, only Goldmann type tonometers (Goldmann or Perkins) should be used when referring patients to the hospital eye service (HES).

Glaucoma suspects (GS) and individuals with Ocular Hypertension (OHT) represent a significant workload in the Hospital Eye Service. This workload can be eased by ensuring that EHEW-accredited optometrists monitor suitable patients with OHT/GS (at low risk of progression) in the community setting.

10.2 Definitions

Ocular Hypertension (OHT) refers to eyes that have consistently or recurrently elevated intraocular pressure (IOP) greater than 21mmHg in the absence of clinical evidence of optic nerve damage or visual field defect [and irrespective of central corneal thickness]. NB: NICE NG81 determines that a new threshold of 24mmHg, instead of 22mmHg is to be used for referrals into the eye hospital– see below.

A Glaucoma Suspect (GS) is an individual who, regardless of the level of the IOP, has features of the optic nerve head (optic disc) and/or visual field(s) that suggest possible glaucomatous damage.

10.3 Repeated measures in EHEW and referrals based on IOP alone

During the course of a GOS or Private sight test, where elevated pressure of **24mmHg or higher** is the only abnormal finding (i.e. there is a normal disc and field). The following process should be followed using Goldmann-type applanation tonometry:

Step 1:
IOP over 31mmHg – refer for diagnosis and management
IOP 24 - 31mmHg – repeat Goldmann-type applanation tonometry on a separate occasion- Band 2 EHEW (Step 2)
IOP below 24mmHg – patient should not be referred

Step 2: Second repeat of Goldmann-type applanation tonometry:
IOP over 31mmHg – refer for diagnosis and management
IOP 24 - 31mmHg - refer for OHT diagnosis and management
IOP below 24mmHg - patient should not be referred

Note that the referral threshold has changed from >21mmHg.

10.4 Discharge from Hospital/ ODTC of patients with OHT/ GS

Selection criteria for community review:

OHT - Patient has been assessed in either or both of an Ophthalmic Diagnosis and Treatment Centre (ODTC) and Hospital Eye Service (HES) consultant ophthalmologist

led clinic, and had a satisfactory review of clinical data by a consultant ophthalmologist (this may have been on a virtual clinic basis) and been confirmed as having ocular hypertension and that this does not require an offer of treatment (as per NICE Guidelines CG85 – 2009 and updated NG-81, 2017) and for whom no other considerations apply that in the opinion of the consultant ophthalmologist would suggest that an offer of treatment should be made.

GS - Patient has been assessed in either or both of an Ophthalmic Diagnosis and Treatment Centre (ODTC) and Hospital Eye Service (HES) consultant ophthalmologist led clinic, and had a satisfactory review of clinical data by a consultant ophthalmologist (this may have been on a virtual clinic basis) and been confirmed as glaucoma suspected and that this does not require an offer of treatment (as per NICE Guidelines CG85 of 2009 and NG -81, 2017) and who has normal intraocular pressure and for whom no other considerations apply that in the opinion of the consultant ophthalmologist would suggest that an offer of treatment should be made.

Patients at low risk of progression to disease will be discharged from the hospital Eye Service (HES) or ODTC to the care of optometrists in the community with details of the patients glaucoma status (see below) and a management plan that details what to do if there is any significant change in status of the patient's condition (NICE Glaucoma Clinical Guidelines CG85 and NG-81).

For patients sent for community review by an EHEW-accredited optometrist, the ODTC/HES unit will send, by letter, to the optometrist in each case:

1. Patient demographic details

2. Clinical summary giving:
    a. visual acuity
    b. anterior segment findings (e.g. Van Herick, Redmond Smith central AC depth, Shaffer gonioscopy grade and angle findings, pigment dispersion / pseudoexfoliation signs)
    c. initial IOP in ODTC/HES, highest IOP, most recent IOP
    d. central corneal thickness
    e. optic disc features (e.g. digital image, vertical cup: disc ratio, peripapillary retinal nerve fibre layer features via OCT)
    f. most recent threshold visual fields plot

3. The plan for review which will include:
    a. Suggested timing of the initial visit to the optometrist as part of the patient's care within the scheme and suggested interval between reviews (this will normally be annually).
    b. Management plan with suggested criteria for re-referral back to the ODTC/HES (e.g. level of IOP, suspicion of development of disc signs glaucomatous optic neuropathy or visual field defect).

When a patient is sent for community optometry review they will sign a written agreement document confirming that they will attend for a community assessment by an EHEW-accredited optometrist. Copies of the agreement will be kept by the patient, the optometrist (as defined below), the GP and the HES unit.

The patient details, clinical summary and plan for review will be sent to the patient's optometrist practice that they nominate to attend, a copy will also be sent to the GP.

10.5 Assessment of patients with OHT/ GS

Following receipt of the letter from the ODTC/ HES containing patient details, clinical summary and plan for review, it is good practice for the EHEW accredited practice to inform the patient that they have received the letter from the hospital and that the patient will be sent a reminder when their appointment is due (in line with the suggested plan for review and the practice's own robust patient reminder protocol).

As part of the assessment of a patient, in line with the EHEW service manual (clinical guidance section conditions), any assessment should include:

- Vision (with current glasses or latest refraction)
- Slit lamp assessment of anterior eye
- Peripheral anterior chamber depth assessment (e.g. Van Herick)
- Intraocular pressure (IOP), including time of day, using a GAT/Perkins tonometer
- Description of optic disc including C/D ratio and neuroretinal rim status. Pupil dilatation is usually necessary to obtain a clear view of the optic disc.
- Threshold related Central visual field plot from an automated perimeter capable of producing a print out (e.g. Humphrey)
- Other procedures at the discretion of the examining optometrist or OMP

If there is a reasonable and legitimate reason for omitting a procedure then provided it is annotated in the practice notes and report, a claim may be made.

If a patient presents with an eye problem that needs urgent (within 24 hours) investigation then the appointment should be rescheduled and a Band 1 EHEW acute examination should be offered at the discretion of the optometrist.

The patient's review interval within the scheme will normally be annually, but the optometrist will be able to see a patient more often than this if advised in the clinical plan letter from the ODTC/HES.

Any other patient appointments that take place in optometric practice will continue as normal. The OHT/GS monitoring is seen as an additional service facilitated through EHEW.

10.6 Decision making following assessment of patients with OHT/GS

Following the examination of the patient by the EHEW-accredited optometrist, there will be three possible outcomes:

i.) No significant clinical change from clinical summary

If the patient's clinical scenario remains unchanged from the clinical summary letter sent from the ODTC/HES or the previous review, the optometrist will record their

findings on their record card in the usual manner and send an information letter to the patient's general practitioner using form WECS(2) clearly marked as for information only.

Thus, for patients in whom the optometrist finds sufficient evidence of stability, it will *not* be normal practice to send any correspondence to the ODTC/HES.

ii) Significant change from clinical summary

If the optometrist detects a change in the patient's clinical situation, as detailed in the clinical plan suggested criteria for re-referral (e.g. a move into a category of ocular hypertension that would be associated with the offer of treatment as per NICE Guidelines) or if the presence of *actual* glaucomatous optic neuropathy is suspected, then the patient will be referred back in to the HES in such a manner as the optometrist sees fit using a WECS (3) form (or other form specified in 2.0 Protocol for EHEW, part 9) to do so.

iii) Referral to the HES for other clinical reason

Should the patient require referral for any other clinical reason then this will be done in the most appropriate way at the discretion of the optometrist. A Band 1 may still be claimed for the work done as part of the OHT/GS service but no further claims should be made (unless agreed by your health board). You should make it clear in the referral that you are transferring the patient's whole care (including glaucoma suspicion / OHT) back to the HES.

Details to be included in WECS(2) or WECS(3) letters for above situations
If a WECS(2) information letter is sent to the GP stating that there is no change in patient's clinical situation, or if a WECS(3) is sent to the ODTC/HES for re-referral, it should include the following.

Namely:

- Description of optic disc including C/D ratio and neuroretinal rim status
- Intraocular pressure (IOP), including time of day, using a GAT/Perkins tonometer
- Inclusion of the print out from the threshold related central visual field plot or a comment that the output of the field plot is normal.
- Slit lamp assessment of anterior eye – a comment that it is normal or a description of signs if it is not.
- A comment on the peripheral anterior chamber depth assessment if it is open, closable or closed.

10.7 Service requirements

An EHEW-accredited optometrist can deliver the service at the premises of a contractor on a Health Board ophthalmic list and the EHEW-accredited practice list.

The service provider (accredited EHEW optometrist) will provide glaucoma assessments in line with this service specification and report the findings back to the

GP using a WECS 2 form.

10.8 Payment

EHEW-accredited optometrists will utilise the EHEW service to assess a patient with OHT / glaucoma suspect with a Band 1 on the WECS (1) payment form.

A Band 1 payment will be submitted to the SSP in the usual manner using the “Needs investigations to comply with WG agreed protocols/guidelines (e.g. DRSSW referral)” with the additional annotation of OHT/GS monitoring and ‘referral from another eye care professional’ tick box on the WECS (1) form (Band 1 EHEW).

10.9 Failure of patient to attend at community optometry practice

If a patient misses an appointment, or does not respond to their reminder – a did not attend (DNA) - the practice may either report to the health board immediately using the form in Appendix 1 or alternatively offer a further appointment in line with their DNA policy. **If they fail to attend the further appointment offered then they must report the DNA to the health board using the form below.**

Note that the DNA policy and reporting of a patient DNA may be invoked because a patient has not responded to a reminder.

10.10 Criteria to be met by Contractor (EHEW-accredited practice)

The contractor must be satisfied that any optometrist or OMP performing EHEW including any locum:

1. is registered with the General Optical Council or General Medical Council;
2. is listed on a Health Board Ophthalmic or Supplementary Ophthalmic list in Wales;
3. is registered to perform/ is accredited to perform EHEW; at the stated practice premises.

11. Pathway description

Discharge of patient

Patients at low risk of progression to disease will be discharged from the hospital Eye Service (HES) or ODTC to EHEW accredited optometrists in the community with details of the patient's glaucoma status and a management plan that details what to do if there is any significant change in status of the patient's condition.

Appointment in EHEW practice

EHEW accredited practice to contact patient and make the necessary appointment arrangements either by telephone or by letter in line with the suggested management plan.
If patient does not respond or fails to attend the EHEW practice will implement its DNA policy or will report the DNA to the appropriate Health Board.

Assessment

An assessment is carried out by an EHEW accredited optometrist in line with the EHEW manual on glaucoma assessment.

On completion of the assessment, if no significant change then the EHEW accredited optometrist sends report to GP using WECS(2) form for information only.

If there is significant change, in line with the management plan, then the patient will be re-referred into the HES/ODTC using a WECS(3).

A Band 1 Claim is made by the EHEW optometrist on a WECS 1 payment form through the SSP in the usual manner annotating "Needs investigations to comply with WG agreed protocols/guidelines (e.g. DRSSW referral)" with the additional annotation of OHT/ GS monitoring and 'referral from another eye care professional' tick box on the WECS (1) form (EHEW Band 1).

12. Cataract: Assessment and management for patients with cataract including post-operative pathways

12.1 Introduction

Due to the high volume of cataract related clinical activity, any improvements in the quality and efficiency within care pathways will have significant benefits to patients, ophthalmology units and health boards. The national all Wales cataract pathway will utilise the efficiency of the EHEW service by eliminating from existing pathways elements that are of limited value or that represent duplication.

12.2 Assessment and management of patients with cataract

EHEW-accredited optometrists can utilise the EHEW service to assess a patient with cataract via the Further Investigation Examination (Band 2 EHEW) following a GOS or private sight test.

If a cataract is found then this should be discussed with the patient. If the cataract is not causing any significant vision or lifestyle problems then the patient can be monitored appropriately. If the patient wishes to consider surgery then they should be given a pre-operative visual function questionnaire Cat-PROM5) to complete (see Appendix V). Note that the practitioners must ask the patient to fill in the form, not fill it in with the patient.

For further information patients should be directed to the RNIB website 'understanding cataracts'
http://www.rnib.org.uk/eye-health-eye-conditions-z-eye-conditions/cataracts
or a leaflet given to them if they do not have internet access (a leaflet can be downloaded from the Royal College of Ophthalmologists website - https://www.rcophth.ac.uk/patients/information-booklets/,
click understanding cataracts. For College of Optometrists members there is also a leaflet available https://www.college-optometrists.org/topics.html?topic=cataract.

Patients found to have significant cataracts should have the following investigations prior to referral to the HES (in addition to other such examinations that the optometrist or OMP feels are necessary) as noted in the Eye Health Examination Wales (EHEW) service clinical manual with protocols.

- Visual acuity - Recorded and compared to previous recordings where available
- Pinhole visual acuity
- Contact tonometry - Using a Goldmann or Perkins tonometer
- Slit lamp biomicroscopy of the anterior and posterior segments through a dilated pupil noting location and type of cataract
- Fundus examination through a dilated pupil with slit lamp binocular indirect ophthalmoscopy using a Volk, or similar lens (60D, Super 66 or digital high mag optimal) with careful assessment of macula status (if AMD present then AMD guidance is to be followed). NB: The presence or absence of any co-morbidity should always be noted on the referral form.

On completion of the questionnaire the optometrist or OMP must take the time to explain about the benefits and briefly outline the risks of the operation, and discuss any points raised by the patient about the questionnaire. This can be done on another visit if necessary. Patients may need time to digest the information before they indicate a willingness to go ahead with the referral.

12.3 Risks associated with cataract surgery

Information needs to be communicated to patients with care and sensitivity.

- 1:25 (4%) Any complication
- 1:100 (1%) Risk of reduced vision
- 1:1000 (0.1%) Risk of total loss of vision

Note that the risk increases for factors such as dense cataract, high ametropia, previous vitrectomy, pseudoexfoliation etc.

Risks, therefore, should only be discussed in approximate terms as individual risks will be discussed prior to the operation at the hospital. The risk increases for factors such as advanced age, dense cataract, high ametropia, previous vitrectomy, pseudoexfoliation etc. but these will be addressed as necessary at the hospital visit(s).

12.4 Referral

Patients requiring referral for cataract should have the following noted in the referral letter to the ophthalmologist (whether in the NHS or privately) as outlined in the Eye Health Examination Wales (EHEW) service clinical manual with protocols.

- A clear indication of reason for referral as a title for the referral
- Confirmation that the patient is willing to consider surgery
- Visual acuity now and what it was previously (including previous Rx, best VA and date)
- Pinhole visual acuity (only if appropriate)
- Confirmation that the cataract is main cause of sight loss
- Notification of any co-existing ocular pathology (including its absence)
- Notification of any problems with driving
- Confirmation that the patient's lifestyle and/or quality of life is compromised as a result of the cataract
- The eye(s) being referred for consideration for surgery
- Any previous history of surgical/laser treatment for cataract or refractive error
- A list of any known medications taken by the patient

A copy of the Cat-PROM5 questionnaire (Appendix V) should be sent with the referral.

The Wales Eye Care Services (WECS) 3 form (or other form specified in 2.0 Protocol for EHEW, part 9) should be used because this specifies the relevant clinical information to enable effective triage. It is a pathway requirement that patients referred to the HES for possible cataract surgery will have had an examination of their ocular media and posterior segment following pupillary dilatation. The referral should

document the presence or absence of relevant ocular co-morbidity such as age-related macular degeneration, together with comment regarding any known special factors or systemic conditions that might limit the patient's ability to attend for ambulatory day case cataract surgery. It should also include confirmation that the patient is likely to accept an offer of surgery. The referral should be sent directly to the HES with a copy to the patient's GP for information.

Patients not requiring referral should be followed-up in primary care with a GOS or private sight test as appropriate.

Payment is not dependent on whether the Band 2 EHEW cataract assessment results in a referral.

PPV Point 25
Compliance with mandatory procedures in Band 2 EHEW assessments of patients with cataracts will not be considered by the PPV team. However, compliance may be considered in clinical audits.

12.5 Post-Operative

Following their cataract surgery, patients are given clear written instructions regarding the timing of their visit to their referring optometrist for continuity of care and postoperative assessment, refraction and the provision of spectacles as required. For most patients this will be four to six weeks after surgery. The information will be sent out from the ophthalmology unit where the surgery has taken place.

Patients can be seen in optometric practice by utilising a General Ophthalmic Services (GOS) or private sight test and then a Band 3 EHEW for uncomplicated follow up.

If, during the examination, unexpected symptoms or signs are found that require further investigation, or if referral back to ophthalmology may be indicated, a Band 2 can be done instead of the band 3 EHEW examination, to allow further investigation to either prevent or inform that referral.

For example, if the patient is found to have an unexplained reduction in vision, which requires subsequent further investigations then a Band 2 can be done instead of a Band 3 to determine if referral back to the hospital is required, and inform the referral where indicated.

A post-operative clinical report form is enclosed (see Appendix VI) which is used for either:

1. Urgent referral back to the HES by telephone and notification to the GP
2. Routine referral back to the HES by post and notification to the GP
3. Discharge, report to the HES and notification to the GP

This form must be sent back to the referring ophthalmology eye unit. Note this may be different from the unit where the surgery took place in the event of out-sourcing or waiting list initiatives. Health Boards may use their own post op clinical report forms (paper or electronic) if they wish instead of the WECS version in Appendix VI.

A patient post-operative outcome questionnaire (see Appendix V) is also given to the patient to fill in. The patient should take the form away to fill in once they have adjusted to their new spectacles following post-operative refraction (usually 2/3 weeks later). Patients should be asked to return the forms to the optometry practice once they have completed the form so that it may be sent back to the appropriate ophthalmology eye unit.

PPV Point 26
Compliance with issuing and return of patients' post-operative outcome questionnaires will not be considered by the PPV team. However, compliance may be considered in clinical audits.

13. Age-related Macular Degeneration

The assessment and management of AMD

13.1 Definitions

The following terms are important in this text:

Wet Age-related Macular Degeneration

Condition caused by the growth of abnormal blood vessels under the retina. Symptoms appear suddenly and progress over days or weeks. Person complains of central metamorphopsia (distortion) and / or central loss of vision. The most important signs are subretinal fluid and haemorrhage.

Dry Age-related Macular Degeneration

Condition caused by the accumulation of waste products under the retinal pigment epithelium. Symptoms develop gradually and progress over months or years. Most people are asymptomatic but may eventually complain of difficulty reading and poor vision in dim light. The most important signs are drusen, pigment epithelial atrophy and pigment clumping (so-called pigmentary changes).

13.2 Stages of AMD*

Early AMD with low, medium or high risk of progression (see below)
Late AMD (dry)
Late AMD (indeterminate)
Late AMD (wet active)
Late AMD (wet inactive). NICE advises not to refer to this as 'dry AMD'

Patients presenting with symptoms of a change in vision or visual disturbance should be offered a fundus exam. This can be performed as an EHEW Band 1 examination to differentiate between treatable and non-treatable macular degeneration with recent onset. Alternatively, if the symptoms or signs were not apparent prior to a GOS or private sight test, a further investigation examination (Band 2) may be used to do further investigations to determine management.

Patients with early AMD and late AMD (dry) should not be referred to the hospital eye service and should self-monitor their AMD using Amsler charts and environmental cues such as window frames or doors becoming distorted. Consideration of referral to the LVSW service may be appropriate.

Patients with late AMD (wet inactive) who have been discharged from hospital, should monitor their own symptoms rather than be actively monitored for AMD.

Late AMD (Wet active)- NICE recommends the use of anti-VEGF treatment for the treatment of late AMD (wet active) AMD within the visual acuity range of 6/12 to 6/96. However, NICE further states that it is clinically effective to treat patients who have late AMD (wet active) and visual acuity better than 6/12. In addition, where a patient's

visual acuity is 6/96 or worse, treatment may be offered if there is an expected benefit to the person's overall visual function.

Late AMD (indeterminate) – this is defined by NICE as fluid within the retina but without neovascularisation, pragmatically this would be difficult for optometrists to determine and most of these patients should be managed the same as 'wet active'.

13.3 Early AMD - Risk of progression

Low risk

- Small drusen (with or without pigmentary abnormalities)
- Medium drusen (without pigmentary abnormalities)
- Pigmentary abnormalities (on their own)

Medium risk

- Medium drusen with pigmentary abnormalities
- Large drusen without pigmentary abnormalities
- Reticular drusen

High Risk

- Large drusen with pigmentary abnormalities
- Reticular drusen with pigmentary abnormalities

Note: A medium drusen is classified as 63-125 micrometers in size, hence, large is over 125 micrometers.

13.4 Optometric assessment and management

The type of examination and frequency and composition of optometric assessment and the management protocols for different groups of patients with macular degeneration is summarised in this section.

13.5 Macular changes without visual problem

If a patient is aged over 55 years and has macular changes without visual problems they should be examined using a private or GOS sight test, followed up regularly and given appropriate advice.

- Macular signs should be recorded diagrammatically.
- Recall in one year for private or GOS sight test (using code 2.0 if required).
- Inform the person about the findings and give advice about how to monitor their vision and return promptly if a change is noticed.
- Advise the person about the benefits of a healthy diet and if they smoke explain the increased risk associated with the development of macular degeneration.

13.6 Assessment and management

The assessment and management of patients with AMD should include:

13.7 Symptoms and History

It is important to elicit the following:

- Symptoms- duration of visual changes, description of visual changes (central loss or distortion), which eye, onset of visual changes (sudden or gradual)
- Ocular History- optometric, ophthalmological, low vision
- General Health- smoking (current, ex-smoker or non-smoker), medication e.g. chloroquine derivatives
- Family Ocular History of AMD
- Myopia
- Previous AMD

13.8 Examination (of both eyes)

Patients should have a full examination to include:

- Best corrected monocular (distance and near) visual acuity
- Refraction
- Pupil responses to light
- Fundus examination through a dilated pupil with slit lamp binocular indirect ophthalmoscopy using a volk, or similar, lens with a description of the macula noting the presence or absence of:
    a) Macular drusen
    b) Pigment epithelium changes (hyper/hypo pigmentation)
    c) Retinal thickening (oedema and exudates)
    d) Sub-RPE or sub-retinal fluid
    e) Macular haemorrhage

13.9 Management

Practitioners must determine if the patient is presenting with potentially treatable Wet Macular Degeneration, Dry Macular Degeneration, non-treatable Wet Macular

Degeneration or other pathology.

- Potentially treatable Wet Macular Degeneration- refer urgently by telephone and/or fax/e-mail the same day using AMD urgent referral pad.

- Dry Macular Degeneration or non treatable Wet Macular Degeneration Information
    a) Inform the patient about macular degeneration
    b) Inform the patient if their vision is outside the legal requirements for driving

Referral

- If both eyes are affected, refer to the Low Vision Service Wales (LVSW).
- If eligible, the person should be advised of the process and benefits of registration and offered referral for this.
- If you are concerned that a person is at risk to themselves or others, then refer urgently to social services. Otherwise referral will be initiated by the LVSW.

Advice

- Advise the person how to monitor for reduced or distorted vision and return promptly if a change is noticed
- Advise about the benefits of a healthy diet for all and the finding that nutritional supplements can help for some patients – see https://nei.nih.gov/areds2/PatientFAQ for advice
- If the person smokes, advise them about the risks of continuing to smoke and the benefits of quitting. Provide them with details of local support networks to do this. http://www.helpmequit.wales/

Other pathology should be managed according to agreed local and national protocols and/or guidelines.

13.10 Referral

- Urgent Referral of Potentially Treatable Wet Macular Degeneration - Patients with potentially treatable Macular Degeneration should be referred the same day by telephone and/or fax/e-mail/ electronically (depending on the centre). NICE states that this referral does not need to be classed as an emergency.
- Routine Referral of Non Treatable Macular Degeneration - Patients who have Macular Degeneration that is not treatable who request an ophthalmological opinion should be referred to the Hospital Eye Service routinely. This should be clearly noted on the referral
- Referral for Registration - Patients who are eligible to be registered or have their registration status changed should be referred routinely to a Consultant Ophthalmologist in the local Hospital Eye Service.
- Referral for a Low Vision Assessment - Refer to a community based LVSW in the first instance. Contact details for services are updated regularly on the website www.eyecare.wales.nhs.uk
- Referral to Social Services - Anyone who is at risk to themselves or others should

be referred urgently to social services. Contact details for social services teams are updated regularly on the website www.eyecare.wales.nhs.uk. Routine rehabilitative support will be initiated by the low vision service.

Suspect Wet AMD referrals should be carried out using the Wet AMD rapid access referral form proper AMD fast track referral forms (AMD urgent referral pad).

A copy of the form should be sent to the patient's GP (note there is no duplicate so a separate copy will need to be made).

The form should include all as specified. This includes:

- Past history in either eye
    a) AMD
    b) Myopic
    c) Other
- Visual acuities (distance and near)
- A clear indication of the reason for referral.
- Duration of vision loss
- Description of the macula in noting the presence of:
    a) Macular drusen (both eyes)
    b) Macular haemorrhage (affected eye)
    c) Subretinal fluid (affected eye)
    d) Exudate (affected eye)

14. Retinal Breaks and Detachments

The assessment and management of patients with real or suspected retinal breaks or detachment.

14.1 Definitions

Retinal break

This is a retinal tear, hole or operculum.

Retinal detachment

This is any type of retinal detachment including rhegmatogenous, tractional or exudative.

14.2 History and symptoms

A full and thorough history and symptoms is essential. In addition to the normal history and symptoms, careful attention must also be given to the following:

History

- Age (patients over 50 years of age are more likely to develop breaks)
- Myopia (over -3D)
- Family history of retinal break or detachment
- Previous ocular history of break or detachment
- Systemic disease (e.g. Diabetes, Marfan's syndrome)
- History of recent ocular trauma, surgery or inflammation

Symptoms

- Loss or distortion of vision (a curtain / shadow / cloak/ veil)
- Floaters
- Flashes

For symptoms of floaters these additional questions should be asked:

- Are floaters of recent onset?
- What do they look like?
- How many are there?
- Which eye do you see them in?
- Any flashes present?

For symptoms of flashes these additional questions should be asked:

- Describe the flashes?
- How long do they last?
- When do you notice them?

For symptoms of a cloud, curtain or veil over the vision these additional questions should be asked:

- Where in the visual field is the disturbance?

- Is it static or mobile?
- Which eye?
- Does it appear to be getting worse?

Symptoms of less concern:

- Long term floaters and/or flashes of >2 months duration

14.3 Examination

All patients presenting for an EHEW with symptoms indicative of a potential retinal detachment should have the following investigations (in addition to such other examinations that the optometrist or OMP feels are necessary):

- Tests of pupillary light reaction, including swinging light test for Relative Afferent Pupil Defect (RAPD), prior to pupil dilatation
- Visual acuity recorded and compared to previous measures
- Contact tonometry noting any IOP discrepancy between eyes (IOP lower in affected eye) with a Goldmann/Perkins
- Slit lamp biomicroscopy of the anterior and posterior segments, noting:
    a) Pigment cells in anterior vitreous, 'tobacco dust' (Shafer's sign), particularly in the absence of any recent intraocular surgery
    b) Vitreous haemorrhage
    c) Cells in anterior chamber (mild anterior uveitic response)
- Dilated pupil fundus examination with slit lamp binocular indirect ophthalmoscopy using a Volk, or similar lens (Digital wide field, Superfield, Super Vitreo fundus lens optimal) asking the patient to look in the 8 cardinal positions of gaze and paying particular attention to the superior temporal quadrant (as 60% of breaks occur here) noting:
    a) Status of peripheral retina, including presence of retinal tears, holes, detachments, operculums or lattice degeneration
    b) Presence of vitreous syneresis or Posterior Vitreous Detachment (PVD)
    c) Is the macula on or off (i.e. does the detachment involve the macula or not)
- Visual field examination at discretion of optometrist or OMP

14.4 Management and referral criteria

Local hospital arrangements may vary for dealing with retinal problems. It is useful to be aware of the local arrangements as this may affect the management of patients. A telephone call may be required to establish to which hospital to send the patient.

14.4.1 Symptoms requiring urgent review within 24 hours

- Sudden increase in number of floaters, patient may report as "numerous", "too many to count" or "sudden shower or cloud of floaters" - Suggests blood cells, pigment cells, or pigment granules (from the retinal pigment epithelium) are present in the vitreous. NB Should be signs of retinal break or detachment present
- Cloud, curtain or veil over the vision - Suggests retinal detachment or vitreous

haemorrhage – signs of retinal break or detachment should be present

14.4.2 Signs requiring referral within 24 hours

- Retinal detachment with good vision – Macula on
- Vitreous or pre-retinal haemorrhage
- Pigment ‘tobacco dust’ in anterior vitreous
- Retinal tear/hole with symptoms

14.4.3 Signs requiring referral to next available clinic appointment at the HES

- Retinal detachment with poor vision - Macula off
- Retinal hole/tear without symptoms
- Lattice degeneration with symptoms of recent flashes and/or floaters

14.4.4 Signs requiring discharge with advice about what to do if patients have symptoms of a retinal detachment (patients to be given verbal advice and a leaflet of written advice*).

- Uncomplicated PVD or partial PVD without signs and symptoms listed in 14.3.1, 14.3.2 or 14.3.3
- Signs of lattice degeneration without symptoms listed in 14.3.1, 14.3.2 or 14.3.3

14.5 Referral letters

Patients requiring referral for retinal breaks or detachment must have the following noted in the referral letter to the ophthalmologist. Letters should be typed whenever possible and may be faxed/ e-mailed/ sent electronically or sent with the patient in urgent cases.

- A clear indication of reason for referral as a title to referral, e.g. retinal tear in superior temporal periphery of right eye
- A brief description of any relevant history / symptoms
- A drawing or description of the location of any retinal break / detachment / area of lattice with disc and macula for scale
- Urgency of the referral
- Whether the macula is on or off (i.e. is the macula region detached or not) – this has a bearing on the urgency of the referral; see 14.3.2 and 14.3.3 above

14.6 Record keeping

- Optometrist or OMPs are reminded to keep full and accurate records of all patient encounters. This includes when the patient is spoken to on the telephone (by the optometrist or OMP or another member of staff) as well as when they are in the consulting room.
- All advice that is given to the patient should be carefully noted, together with any information that was given to the patient.
- *Patient leaflets about flashes and floater symptoms are available from the

College of Optometrists website in the members area (only available to members)

- or from the Association of Optometrists' (AOP) website http://www.aop.org.uk/search?q=retinal+detachment
- Negative as well as positive findings should be noted (e.g. 'no retinal tears or breaks seen').

PRE-OPERATIVE CATARACT QUESTIONNAIRE

Cat-PROM5 patient consent

Thank you very much for agreeing to complete this form.

The information provided by you may be used for audit and evaluation purposes if you tick the box below. This means we may use the information to see how the service is working and to make improvements. You will not be contacted at any time and any information used cannot be traced back to you.

Please tick box

I agree for my anonymised data to be used for evaluation or audit purposes ☐

Name of Patient Date Signature

Cat-PROM5 Questionnaire

STRICTLY CONFIDENTIAL

Thank you for helping us to know more about how cataract affects your eyesight.

SOME OF THE QUESTIONS MAY SEEM SIMILAR BUT PLEASE ANSWER ALL

Full Name _____

Date of Birth (DD/MM/YY) _____

Address _____

_____

_____ Postcode _____

Please read the following information

Please think about your **eyesight** in the **past month.**

If you use **glasses** or **contact lenses** for some activities, please answer according to how you can see **when using them**.

If you have had an eye operation, an eyesight test, a change of glasses or a sudden change in the eyesight **in the past month** please inform us **now**.

Please ask for help if the questions are not clear

If you use **glasses** or **contact lenses** for some activities, please answer according to how you can see **when using them**.

Please think about your **eyesight** in the **past month.**

1. In the past month, have you felt that **your bad eye** is affecting or interfering with your vision overall?

No, never ☐	0
Yes, some of the time ☐	1
Yes, most of the time ☐	2
Yes, all of the time ☐	3

The rest of the questions are about your eyesight **overall**, **using both eyes together.** If you use **glasses** or **contact lenses** for some activities, please answer according to how you can see **when using them**.

Think about how your **eyesight** has made you **feel** in the **past month**.

2. In the **past month**, How much has your **eyesight** interfered with your **life in general**?

Not at all ☐	0
Hardly at all ☐	1
A little ☐	2
A fair amount ☐	3
A lot ☐	4
An extremely large amount ☐	5

3. How would you describe your vision **overall in the past month** - with both eyes open, wearing glasses or contact lenses if you usually do?

Excellent ☐	0
Very good ☐	1
Quite good ☐	2
Average ☐	3
Quite poor ☐	4
Very poor ☐	5
Appalling ☐	6

If you use **glasses** or **contact lenses** for some activities, please answer according to how you can see **when using them**.

Please think about your **eyesight** in the **past month.**

4. In the past month, how often has your **eyesight** prevented you from doing the things you would like to do?

Never ☐	0
Some of the time ☐	1
Most of the time ☐	2
All of the time ☐	3

If you use **glasses** or **contact lenses** for some activities, please answer according to how you can see **when using them**. Please think about your **eyesight** in the past month.

5. In the past month, have you had difficulty reading normal print in books or newspapers **because of trouble with your eyesight**?

No difficulty	☐	0
Yes, a little difficulty	☐	1
Yes, some difficulty	☐	2
Yes, a great deal of difficulty	☐	3
I cannot read any more **because of my eyesight**	☐	4
I cannot read because of **other reasons**	☐	8

6. Please tell us who actually gave the answers to the questions and who wrote them down

I gave **all** the answers and wrote them down **myself**	☐	1
I gave **all** the answers and someone else wrote them down as I spoke	☐	2
A friend or relative gave some of the answers on my behalf	☐	3

Please write today's date here: ___/___/___

DAY MONTH YEAR

NOW, PLEASE CHECK THAT YOU HAVE ANSWERED ALL THE QUESTIONS ON EVERY PAGE. Please hand back to the person who provided you with this questionnaire or return in the envelope supplied to:

Thank you for completing this questionnaire about your eyesight. Your answers will be **confidential**.

POST-OPERATIVE CATARACT QUESTIONNAIRE

Cat-PROM5 patient consent

Thank you very much for agreeing to complete this form.

The information provided by you may be used for audit and evaluation purposes if you tick the box below. This means we may use the information to see how the service is working and to make improvements. You will not be contacted at any time and any information used cannot be traced back to you.

Please tick box

I agree for my anonymised data to be used for evaluation or audit purposes ☐

Name of Patient Date Signature

Cat-PROM5 Questionnaire

STRICTLY CONFIDENTIAL

Thank you for helping us to know more about how cataract affects your eyesight.

SOME OF THE QUESTIONS MAY SEEM SIMILAR BUT PLEASE ANSWER ALL

Full Name _____

Date of Birth (DD/MM/YY) _____

Address _____

_____

_____ Postcode _____

Please read the following information

Please think about your **eyesight** in the **past month.**

If you use **glasses** or **contact lenses** for some activities, please answer according to how you can see **when using them**.

If you have had an eye operation, an eyesight test, a change of glasses or a sudden change in the eyesight **in the past month** please inform us **now**.

Please ask for help if the questions are not clear

If you use **glasses** or **contact lenses** for some activities, please answer according to how you can see **when using them**.

Please think about your **eyesight** in the **past month.**

1. In the past month, have you felt that **your bad eye** is affecting or interfering with your vision overall?

No, never ☐	0
Yes, some of the time ☐	1
Yes, most of the time ☐	2
Yes, all of the time ☐	3

The rest of the questions are about your eyesight **overall**, **using both eyes together.** If you use **glasses** or **contact lenses** for some activities, please answer according to how you can see **when using them**.

Think about how your **eyesight** has made you **feel** in the **past month**.

2. In the **past month**, How much has your **eyesight** interfered with your **life in general**?

Not at all ☐	0
Hardly at all ☐	1
A little ☐	2
A fair amount ☐	3
A lot ☐	4
An extremely large amount ☐	5

3. How would you describe your vision **overall in the past month** - with both eyes open, wearing glasses or contact lenses if you usually do?

Excellent	☐	0
Very good	☐	1
Quite good	☐	2
Average	☐	3
Quite poor	☐	4
Very poor	☐	5
Appalling	☐	6

If you use **glasses** or **contact lenses** for some activities, please answer according to how you can see **when using them**.

Please think about your **eyesight** in the **past month.**

4. In the past month, how often has your **eyesight** prevented you from doing the things you would like to do?

Never	☐	0
Some of the time	☐	1
Most of the time	☐	2
All of the time	☐	3

If you use **glasses** or **contact lenses** for some activities, please answer according to how you can see **when using them**. Please think about your **eyesight** in the past month.

5. In the past month, have you had difficulty reading normal print in books or newspapers **because of trouble with your eyesight**?

No difficulty	☐	0
Yes, a little difficulty	☐	1
Yes, some difficulty	☐	2
Yes, a great deal of difficulty	☐	3
I cannot read any more **because of my eyesight**	☐	4
I cannot read because of **other reasons**	☐	8

6. Please tell us who actually gave the answers to the questions and who wrote them down

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A friend or relative gave some of the answers on my behalf	☐	3

Please write today's date here: ___/___/___

DAY MONTH YEAR

NOW, PLEASE CHECK THAT YOU HAVE ANSWERED ALL THE QUESTIONS ON EVERY PAGE. Please hand back to the person who provided you with this questionnaire or return in the envelope supplied to:

Thank you for completing this questionnaire about your eyesight. Your answers will be **confidential**.

All Wales Post-operative cataract clinical report form

To be sent to ophthalmology along with Postoperative questionnaire form

Patient details	
Name:	D.O.B:
Address:	
Hospital No:	

Optometrist/Practice:	GP details
Name:	Name:
Address:	Address:
Phone:	

Refraction

	Vision	Sphere	Cyl	Axis	Prism	Base	V/A	PH	Binoc. VA	Add	Near V/A
R											
L											

Ocular Examination - Circle all boxes. Slit lamp assessment is compulsory.

Question	Response	Details/ Comments
Px symptomatic?	Y/ N (if Y, please add details)	
Is the Cornea clear?	Y/ N	
Cells in anterior chamber?	absent minimal present	

Criteria for referral back to HES

Immediate referral by telephone:		Routine referral	
Pain and redness	Significant ocular inflammation	Vision < 6/12	Unexplained symptoms
Wound leak	Pupil abnormality	Symptomatic anisometropia	Refractive surprise
Iris prolapse	Intraocular pressure > 21 mmHg	Need for second eye surgery	Patient preference
Visual acuity significantly different from anticipated		Other non-urgent ocular pathology	
Remember to send this form to the HES with the patient.			

Action: Tick one option

	Immediate referral back to the HES by telephone and notification to the GP
	Routine referral back to the HES by post and notification to the GP
	Discharge, report to the HES and notification to the GP

Signature:_____ OL/SOL _____

Date:____/___/_____