Clinical Senate
Yorkshire and the Humber

"An independent source of strategic clinical advice for Yorkshire and the Humber"

Clinical Senate Review of Ophthalmology Procedure List and Referral Guidelines for North Lincolnshire CCG

Document Review

Version 1.0

November 2014

Version Control

Document Version	Date	Comments	Drafted by
Draft 0.1	15th October 2014	Drafted based on panel comments	JP
Draft 0.2	23rd October 2014	Amended based on panel feedback	JP
Draft 0.3	4th November 2014	Amended based on commissioner feedback	JP
Version 1.0	25th November 2014	Ratified by 20th November Council meeting with amended presentation of the title	JP

1. Introduction

1.1 The Yorkshire and the Humber Clinical Senate received a request to review a proposed ophthalmology procedure list and referral guidelines on behalf of North Lincolnshire Clinical Commissioning Group (CCG). North Lincolnshire Clinical Commissioning Group (NL CCG) are planning the development of a community based, integrated ophthalmology service, and Yorkshire and Humber Commissioning Support Unit (Y&H CSU) have, on behalf of NL CCG drawn on a guideline from elsewhere in the country as a starting point for development of referral criteria. The guidelines state that the ocular conditions listed are intended to reflect those that might be encountered in community optometrist practices, GP practices, community care and secondary care. The conditions listed have been allocated a colour code to indicate acute, urgent or routine referral with a suggested appropriate level of care

1.2 The Senate's understanding is that the CCG is intending to procure a consultant led integrated community ophthalmology service and are intending to move outpatients and some procedures into a community service. The referral guidelines are intended to support this service.

1.3 The Senate was asked to review the procedure, where the procedure can be done and the timescales addressing the following questions:

- Are the classifications listed in the referral guidelines correct for each condition they are assigned to?
- Are the procedures appropriate for ophthalmology?
- Are there any risks in the suggested approach which the Senate would advise us to consider?
- Are there any general principles and best practice guidelines for providing ophthalmology services in community settings which the Senate would advise us to consider?

1.4 The Senate received the guidelines on 1st October and was asked to provide the draft report by 15th October.

2. Senate Response to the Questions

2.1 Are the classifications listed in the referral guidelines correct for each condition they are assigned to?

2.1.1 The review panel raised significant concerns about the clinical content of the document. The panel highlighted a number of errors within the referral guidelines which are listed in appendix 2 of this report. The appendix 2 comments are not an exhaustive list of the errors but highlights the level of error within the document. The review panel opinion is that in their current form the classifications are not fit for purpose. The panel raised particular concerns with the keratoconus/keratoacanthoma mistake. The author is talking about keratoconus and yet suggests no treatment is needed in the

early stage - this is now a treatable disease and it is appropriate that a patient with Keratoconus should be reviewed by an ophthalmologist with a special interest in corneal disease at an early stage to assess what treatment is indicated.

2.2 Are the procedures appropriate for ophthalmology?

2.2.1 The panel agreed that they were mostly appropriate.

2.3 Are there any risks in the suggested approach which the Senate would advise us to consider?

2.3.1 The document is headed “North Lincolnshire Referral Guidelines” but there is lack of clarity on who will be referring. Perhaps all referral will be triaged but this is not made clear. The review panel felt that they needed further information on the qualifications and experience of the proposed community service to assess whether it is valid for the intended audience. The lack of certainty on who the referral guidelines are aimed at made it difficult to judge whether the recommendations were safe. The document mentions optometrists and GPs whose knowledge range will differ considerably. The panel felt that if the guidelines are aimed at GPs then some of the descriptions of the conditions and criteria for referral is beyond a GPs professional competence to decide upon.

2.3.2 With the exception of those patients who present at A&E or Eye Casualty, the majority patients with eye problems will present at a community optical practice or visit their GP. Some with minor concerns will go to a pharmacy. Patients generally present with signs and symptoms rather than a diagnosis therefore the different levels of competence and knowledge of those professional groups and their ability to carry out an examination of the eye will determine whether they are even able to make even a tentative diagnosis or whether they need to refer on.

2.3.3 The Senate has been informed that the Community Service is to be consultant-led but it is unclear whether community optometrists have been commissioned to provide a Minor Eye Conditions Scheme or cataract referral counselling etc. to run alongside this, or whether there is an expectation that the community ophthalmology service absorbs such services, or whether this has been considered. The services which community optometrists will manage themselves will depend on what they have been commissioned to do (over and above providing sight tests). There may also be some optometrists with specialist qualifications to consider.

2.3.4 The commissioners may wish to consider developing a specific set of referral guidelines for pharmacists and GPs without an interest in eyes, advising them what symptoms they can send to an optometrist for further investigation, what is an emergency and needs to go to the hospital eye service and what can be sent to the community consultant led service. Commissioners may wish to consider developing another set of guidelines for optometrists which will

depend on what they have been commissioned to do themselves. The Senate advises of the need for a service specification that makes it very clear to the consultant led community service what they are expected to see within their service. It also needs to be made clear to A&E/Eye Casualty whether they are expected to direct patients to the community service if appropriate.

2.4 Are there any general principles and best practice guidelines for providing ophthalmology services in community settings which the Senate would advise us to consider?

2.4.1 The review panel is not aware of such principles and guidelines. "Community Ophthalmology" is something that a number of CCGs are looking to move towards. CCGs can draw upon the expertise available to them via the Local Eye Health Networks and through local stakeholders. The Clinical Council for Eye Health Commissioning was established 18 months ago in England to take on a leadership role with regards to national commissioning.

www.college-optometrists.org/en/EyesAndTheNHS/clinical-council-for-eye-health-commissioning/index.cfm .

2.4.2 The Royal College of Ophthalmologists and the College of Optometrists are being encouraged to provide leadership and support for commissioners and the Clinical Council by forming a working group to develop a community ophthalmology framework. The intention is to ensure robust service specifications, governance arrangements and appropriate quality and outcomes measures are implemented. In the absence of such a framework at this present time commissioners may wish to consider developing a multi-professional expert group at Local Eye Health Network Level to develop guidelines and to advise on the service specification.

2.4.3 More generally optometrists will also be guided by the College of Optometrists who provide a list of recommended guidelines on their website.

3. Additional Comments

3.1 Ophthalmology is increasingly sub-specialised and the review panel felt that a community scheme would need governance by senior specialised ophthalmologists who could advise on their own sub-speciality.

3.2 Ophthalmology is also much more technology driven than in the past and the review panel advised of the need to consider the community services infrastructure. An example provided by the panel is that community follow up needs to ensure that retinal diseases could undergo optical coherence tomography (OCT) monitoring and that these large images could be transferred routinely and safely via telemedicine around the region. The panel felt that the community service would require ultrasound, field analysis, OCT, fluorescein, electroretinography (ERG) and computerised tomography (CT) scanning. The level of expertise required in the service would be an ophthalmologist and a vitreoretinal surgeon. The commissioners would need to consider this issue within the development of their service.

3.3 The panel also highlighted the need to ensure streamlined communications for the referral from primary care to secondary care. For urgent referrals that need to be seen within 24 - 48 hours, it may be better speaking to the on call doctor who can arrange for urgent assessment rather than via letter which can often get missed or delayed.

4. Summary and Conclusions

4.1 The review panel do not recommend the use of this document to support the procurement of a consultant led integrated community ophthalmology service. The review panel have significant concerns with the clinical accuracy of the document. The review panel also recommend that further thought is given to the qualifications, experience and professional competencies of the proposed community service. The panel felt that there was too great a knowledge range between the referrers for this to be able to support the range of professionals intended.

APPENDICES

Appendix 1

LIST OF INDEPENDENT CLINICAL REVIEW PANEL MEMBERS

In developing its advice the Senate drew upon the expertise of:

- Amar Alwitry, Consultant Ophthalmologist and Clinical Lead for Community Ophthalmology, Derbyshire Community Health Service
- Ben Burton, Honorary Senior Lecturer UEA, Consultant Ophthalmologist, James Paget University Hospital NHS Foundation Trust
- Louise Downey, Consultant Ophthalmologist at Hull and East Yorkshire NHS Trust with a specialist interest in Medical Retinal diseases.
- Elise Hollowell, Optometrist, Moorhouse Opticians
- Marion Sikuade, Specialist Registrar in Ophthalmology, Doncaster Royal Infirmary
- Andrea Kerr, Consultant Ophthalmologist Training Programme Director for Ophthalmology Quality Lead in the School of Surgery, Health Education East Midlands
- Katrina Venerus, Managing Director, Local Optical Committee Support Unit
- Stephen Winder, Consultant Ophthalmic Surgeon, Sheffield Teaching Hospitals

The Senate Council ratified the report at its meeting on 20th November 2014

Appendix 2

North Lincolnshire Ophthalmology Referral Guidelines

The ocular conditions listed in this guide are intended to reflect those that might be encountered in community optometrist practices, GP practices, community care and secondary care. The document is not intended to be exhaustive. The suggestions for referral have been devised for guidance only. It does not remove the practitioner's professional responsibility to each patient, who should be dealt with on an individual case basis.

Although it is the clinician's responsibility to judge the urgency of each referral, the conditions listed have been allocated a colour code as a guide which indicates the most appropriate level of care where a patient can be referred; this does not remove the patient's choice. The guide is as follows;

Referral Urgency

Acute Referral Urgent Referral Routine Referral

Where to refer

& **Urgent and Acute Referrals**

Urgent and **Acute** cases should be referred to Scunthorpe General Hospital Ophthalmology Department through appropriate referral route.

Routine Community Referrals

Patients registered with a North Lincolnshire GP who requires **routine referral** in line with attached guidelines can now be referred directly by the clinician via a new scheme established with North Lincolnshire Clinical Commissioning Group.

Routine referral suitable for community service or community optometrist practice can be sent directly to the service through the appropriate referral route.

Please note the community service is only for patients aged 18 or over. All children and orthopic referrals (under 18 years) are to be sent to hospital based ophthalmology service.

Routine Hospital Referrals

Certain routine conditions and categories of patient are not suitable for the community based service and so instead should be sent directly to the hospital of choice.

The guidelines set out below are intended to help you decide which is the most appropriate service to use and the urgency of the referral but you should always assess the individual referral and use your professional judgement.

Referral Guidelines – The Anterior Segment

Condition		Details	Appropriate Level of Care
Abnormal Iris Pigmentation		Most are benign. Beware of raised lesion, documented growth, pupil distortion, localised lens opacity, hyperchromic, heterochromia.	**Community Service**
Acute Dacryocystitis		Excessive tearing, Red swollen mass medial to eye. Regurgitation under pressure. THIS SHOULD BE MANAGED BY THE HOSPITAL EYE SERVICE RATHER THAN THE GP. IT CAN CAUSE A PRE-SEPTAL OR EVEN ORBITAL CELLULITIS AND CAN REQUIRE INCISION AND DRAINAGE.	**General Practitioner- within 24 hours**
Allergic Conjunctivitis		Sudden onset of itchy eye with a watery discharge, swollen lids and conjunctival hyperaemia. Attacks tend to be sudden, short and intense.	**Treat by optometrist or advice. Patient to consult pharmacist. If poor response refer to GP.**
Bacterial Corneal Ulcer		Red eye, purulent discharge and light sensitive. Lesion is typically round with a white base. CONTACT LENS WEAR IS A MAJOR RISK FACTOR AND SHOULD BE MENTIONED. IMMEDIATE REFERRAL TO HOSPITAL SERVICE IS REQUIRED	**Hospital Service - within 24 hours**
Bacterial Conjunctivitis		Red and painful eye with hyperaemia and purulent discharge. A PHARMACIST IS NOT BEST PLACED TO MAKE THIS DIAGNOSIS. VIRAL AND BACTERIAL CONJUNCTIVITIS CAN PRESENT SIMILARLY AND IT IS ONLY BY TAKING A SUCCINCT HISTORY THAT THE TWO AETIOLOGY CAN BE DISTINGUISHED. IF IT HASN'T IMPROVED IN 2 WEEKS THEN IT IS PROBABLY CHLAMYDIA AND MOST OPTOMETRISTS ARE UNABLE TO TAKE A SWAB FOR THIS SO HOSPITAL REFERRAL WOULD BE MORE APPROPRIATE. RISKS OF MISSING THIS INCLUDE INFERTILITY.	**Advice patient to consult pharmacist**
Basel Cell Carcinoma		Non healing lesion which is shiny, firm and pearly. Dilated blood vessels and slow growing over years. Can become ulcerative with rolled edges.	**Hospital Service - within 2 weeks**
Blepharitis		Very common inflammation of the lid margins due to Staphylococcus infection producing FB sensation, lid crusting and tear instability. ALSO CAUSED BY FATTY SECRETIONS ON LID MARGIN AND STAGNATION OF MEIBOMIAN GLANDS. LINKED TO	**No referral necessary** Advice on lid hygiene, topical lubricants THIS ASSUMES THERE IS AN ACCURATE DIAGNOSIS AND THAT WHOEVER

		ROSACEA – WARM BATHING SHOULD BE ADVISED.	THE PATIENT PRESENTS TO IS FUNDED TO PROVIDE LID HYGIENE ADVICE ETC. (OPTOMETRISTS ARE ONLY FUNDED IF THERE IS A MINOR EYE CONDITIONS SCHEME IN PLACE).
Blepharospasm		Involuntary spasm of orbicularis & upper facial muscles. Factors include stress, driving, reading, bright lights. Typically 60+. THIS CONDITION IS TREATED WITH BOTULINUM TOXIN INJECTIONS AND OCCASIONALLY ORBICULARIS MYECTOMY- IS COMMUNITY REFERRAL REALLY THE MOST APPROPRIATE FOR THIS? DO THEY OFFER THIS SERVICE?	**Community Service**
Chalazion		Chronic inflammatory lesion causing blockage of meibomian glands. Round, firm lesion in tarsal plate. Affects any age. Refer if acute or associated problems. EVEN IF ACUTE THERE IS NO NEED TO REFER. WARM BATHING SHOULD RESOLVE IT.	**Usually no referral necessary** **Refer to GP if acute or there are associated problems. If surgery required, refer to Community Service**
Corneal Dystrophy		Spontaneous, usually inherited, bilateral, corneal alternative ***without*** inflammation. Usually stationary, slowly progressive. Most present by 20 years old. Refer if vision becomes reduced. - TREATMENTS INCLUDE CORNEAL GRAFT AND GENETIC CONCELLING – UNSURE IF YOUR COMMUNITY OPTOMETRISTS DO THIS . FAILURE TO REFER KERATOCONUS TO THE HOSPITAL SERVICE FOR CROSS-LINKING WOULD RESULT IN POOR OUTCOMES AND LATER UNNECESSARY SURGERY.	**Community Service**
Dermatochalasis		Excessive skin folds. Commonly seen in over 60's. Eyelids feel "heavy". Only refer if patient has symptomatic field loss.	**Hospital Service**
Ectropion		Lid turned out, exposed conjunctiva, chronic infections. Eye is irritable, red, watery and unable to close properly. NEED TO ADD IN ENTROPION WHERE LID TURNS IN – REQUIRES LUBRICANTS TO PREVENT DAMAGE FROM LASHES ON CORNEA AND REFERRAL TO HOSPITAL AS ROUTINE.	**Community Service**
Episcleritis		Common, benign, self-limiting condition affecting superficial episcleral vessels. Typically few symptoms and no systemic associations.	**General Practitioner - Refer if appropriate**
Giant Cell (Temporal)		A condition in which medium and large arteries, usually in the head and neck, become	**Hospital Service**

Arteritis		inflamed. Treat as a medical emergency because without prompt treatment it can lead to permanent visual loss. IF NO VISUAL SYMPTOMS URGENT REFERRAL TO MEDICS. IF VISUAL SYMPTOMS URGENT REFERRAL TO HOSPITAL SERVICE. STEROIDS NEED TO BE STARTED AS SOON AS POSSIBLE TO AVOID DEVASTATING VISION LOSS.	
Herpes Simplex Keratitis		Herpes Simplex or Zoster infection. Dendritic ulcer if epithelial or Disciform Keratitis if stromal.	**Hospital Service - to be seen within 48 hours**
Herpes Zoster Ophthalmicus		Prodromal symptoms such as headache, fever, malaise, skin discomfort and rash, blurred vision, eye discomfort and eye pain. Signs are acute vesicular rash along fifth cranial nerve to midline. IF EYE NOT INVOLVED THEN NO NEED FOR URGENT REFERRAL TO EYES. TREAT WITH ORAL ACICLOVIR AS PER OTHER SHINGLES CASES. IF TIP OF NOSE INVOLVED OR EYE RED/SORE REFER TO HOSPITAL EYE SERVICE.	**Hospital Service - to be seen within 24 hours**
Hyphaema		Blood in anterior chamber Causes can be traumatic, latrogenic (IO surgery e.g. Trab) or blood disorder e.g. thrombopenia NEEDS URGENT – RED - REFERRAL AS RISK OF HIGH IOP	**Hospital Service**
Iritis		Can be exogenous (trauma), endogenous (Ankylosing Spondylitis), infection (HZV) or idiopathic (majority). Signs can include injections, cells in AC, hypopyon (severe cases) KP's and posterior synachiae.	**Hospital Service - referral to hospital the same day**
Iridoschisis		Rare condition where localised area of iris stoma is cleaved into two with the anterior atrophic portion becoming fibrils Unknown aetiology Age-related degerneration associated with glaucoma THIS IS NOT A COMMON CONDITION. ANYONE WHO KNOWS WHAT IRIDOSCHISIS IS AND CAN RELIABLY RECOGNISE IT DOES NOT NEED A LIST LIKE THIS TO HELP THEM.	**Community Optometrist** **Requires a regular IOP check**
Kerataocanthoma		Progressive disorder involving irregular conical shaped cornea. Usually bilateral and asymmetric. Watch for scissor reflex. Refer is vision falls below 6/9 THIS IS A BENIGN CONDITION WHICH MIMICS SQUAMOUS CELL CARCINOMA IN SOME CASES AND CAN BE DIFFICULT TO DIFFERENTIATE WITHOUT BIOPSY SOMETIMES. THE DOCUMENT DESCRIBES KERATOCONUS INSTEAD OF	**Community Service**

		KERATOACANTHOMA WHICH IS COMPLETELY DIFFERENT.	
Marginal Corneal Ulcer		Hypersensitivity reaction to Staphylococcus exotoxins Common in blepharitis. Sub-epithelial infiltrate separated by a clear zone of cornea.	**Hospital Service - to be seen within 48 hours**
Pinguacula		Yellow white deposit on the conjunctiva adjacent to the limbus. Has a direct correlation with UV exposure. NO NEED FOR REVIEW/REFERRAL – THESE ARE A NORMAL FINDING/VARIANT. IF NOT RED AND INFLAMMED NO NEED TO REFER.	**To be seen by optomestrist within 48 hours**
Poor Lacrimal Patency		Clear watery discharge. Usually painless (unless dacryocystitis, mucocoele) Check with Fluorescein Clearance Test	**Community Service**
Pterygium		Wing shaped, fibrovascualar tissue extending onto cornea. Commonly on nasal side. Signs include redness, irritation, dry eye feeling and decreased vision. **Refer if symptomatic or if lesion has progressed onto cornea by more than 2mm.**	**Community Service**
Ptosis		Causes can be neurogenic, myogenic aponeurotic or mechanical. If acute onset refer sooner than routine. IF ASSOCIATED WITH POOR EYE MOBILITY UNDER THE DROOPY LID REFER URGENTLY TO HOSPITAL EYE SERVICE – MAY BE THIRD NERVE PALSY.	**Community Service**
Scleritis		A granulomatous, potentially sight threatening inflammation of the sclera with possible complications including uveitis, keratitis and glaucoma.	**Hospital Service - to be seen within 48 hours**
Squamous Cell Carcinoma		Less common than basal cell but much more aggressive and accounts for approximately 5% of all eyelid neoplasms. Typically affects elderly fair skinned people. DOES NOT NEED TO BE SEEN WITHIN TWO HOURS – SEE AT HOSPITAL WITHIN 2 WEEKS.	**Hospital Service - to be seen within 2 hours**
Trichiasis		Posterior misdirection of eyelashes. Common in blepharitis, trachoma and following chemical injury. Complications can include punctate keratopathy and corneal ulceration. **Only refer if symptomatic**	**Community Service**
Viral Conjunctivitis		Often associated with an infection of the upper respiratory tract, a common cold, and/or a sore throat. Symptoms include watery discharge and variable itch. Often starts in one eye but becomes bilateral. Highly contagious but refer *only* if secondary complications.	**Refer to GP if necessary**

Referral Guidelines – The Lens and Vitreous

Condition		Details	Appropriate Level of Care
Asteriod Hyalosis		Benign (mainly unilateral) condition where particles return to same position after movement. Treatment only in patients who are also being managed for retinal disease.	**No referral necessary**
Cataract		Patients requiring surgery and who are registered with a North Lincolnshire GP should be pre-assessed and referred appropriately.	**Community Service**
Congenital Cataract		Usually diagnosed at birth or as infant but if not permanent visual loss can occur. Degree of loss will depend on size and location. Refer only if a child under 7 years.	**Hospital Service**
Ectopia Lentis		Displacement or malposition of the lens. In the absence of trauma, ectopia lentis should raise suspicion for concomitant hereditary systemic disease or associated ocular disorders.	**Hospital Service - referral if traumatic, risk of amblyopia or glaucoma evident** **Community Service – if not traumatic, risk of amblyopia or glaucoma evident**
Posterior Capsular Thickening		Decrease in vision is the main symptom which begins anywhere from a few months to many years after cataract surgery. Problems with glare and bright lights as well as decreased visual acuity. Treated by YAG capsulotomy. REFER ROUTINE	**Hospital Service**
Pseudo-exfoliation		Anterior capsular changes that have implications for glaucoma. Note that normal IOP does not preclude prior IOP elevation. – RECOMMEND REGULAR OPTOMETRY REVIEW Referral criteria dependent on whether signs and symptoms of OAG present.	**If no evidence or suspicion of glaucoma then no referral necessary** **If glaucoma evident then refer to Hospital Service**
Synchysis Scintillans		Degenerative condition resulting in liquefied vitreous humor and the accumulation of cholesterol crystals. Apperas as small white floaters that freely move in the posterior part of the eye, giving a snow globe effect. NO NEED TO REFER	**Community Optometrist**
Vitreous Haemorrhage		Can give rise to profound vision loss if macula is obscured even by a small bleed. Causes include retinal detachment, prolifeative DR, CRVO and trauma.	**Hospital Service**

Referral Guidelines – The Optic Disc

Condition		Details	Appropriate Level of Care
Glaucoma (Open Angle)		Open angles/deep anterior chamber Optic nerve head damage Visual field defect and Rasied Intraocular pressure	**Community Service**
Glaucoma (Normal Tension)		Open angles/deep anterior chamber Optic nerve head damage Visual field defect and Intraocular pressure within normal range	**Hospital Service**
Glaucoma (Acute Angle Closure)		Narrow-angle glaucoma is of sudden onset with pain, limbal hyperaemia ad blurred vision. Intraocular pressures can be very high so urgent referral is required to aviod vision loss. PUPIL IS NON REACTIVE	**Hospital Service**
Glaucoma (Narrow Angle Glaucoma)		Narrow angles/shallow anterior chamber Optic nerve head damage Visual field **defect** and rasied intraoculAr pressure. Patient will need YAG Peripheral Iridotomies	**Hospital Service**
Glaucoma (Narrow Angles)		Narrow angles/shallow anterior chamber Optic nerve head – No damage Visual field full and Intraocular pressure normal or raised. Patient will need YAG Peripheral Iridotomies	**Hospital Service**
Glaucoma (Secondary)		Open angles/deep anterior chamber Or Narrow angles/shallow anterior chamber Optic nerve head damage Visual field defect and Raised intraocular pressure	**Hospital Service**
Ocular Hypertension		Rasied intraocular pressure in the absence of optic nerve damage or visual field loss. Patients registered with a North Lincolnshire GP should udergo Glaucoma Referral Refinement Scheme.	**Community Service**
Hypoplastic Disc		The left disc is smaller than the right and blood vessela may enter the optic disc at an angle (giving an apperance of tilted disc). There may be associated nystagmus in the involved eye.	**Children should be urgently referred to hospital service**

		There may be strabismus or afferent pupillary defect if the involvment is unilatral. IN AN ADULT IF THIS IS LONG STANDING AND NO CHANGE IN VISION THERE IS NO NEED TO REFER.	**Adults should be routinely referred to hospital service**
Morning Glory Syndrome		Congenital condition where a cntral core of shite glial tissue occupies the position of the normal optic cup, causing a white mass. Visual impairment depends on the development of the optic nerve where mild cases have limited colour perception to total blindness in advanced cases.	**Children should be urgently referred to hospital service** **Adults should be routinely referred to hospital service**
Myelinated Nerve Fibres		Non progessive, congenital condition. Where nerve fibres are encased in a sheath of myelin. NFL has white, feathery-edged apperance. Usually asymptomatic but extensive myelination can produce decreased vision and scotoma.	**If diagnosis is confident then no referral necessary, otherwise a routine referral to community service**
Optic Disc Coloboma		Optic disc is vertically oval with excavation. Retinal vessels have abnormal origin and the choroid and iris may be involved. Condition may be bilateral.	**Community Service**
Optic Disc Drusen		The edge of the optic disc is irregular and there are lumpy, yellowish materials with the disc. The optic cup is absent and the blood vessels show an abnormal branching pattern. REQUIRE AUTOFLOURECENCE, ULTRASOUND OR CT SCAN TO CONFIRM THE DIAGNOSIS, DOES THE COMMUNITY SERVICE HAVE ACCESS TO THESE MODALITIES? A SWOLLEN DISC SHOULD BE REFERRED URGENTLY TO THE HOSPITAL SERVICE.	**Community Service**
Optic Disc Haemorrhage		Often follows pattern of the nerve fibre layer. If it starts over the optic nerve head but extends into the peripapillary retina, it is still considered an optic nerve haemorrhage. Causes can be glaucoma, PVD and diabetic retionoPathy.	**Community Service**
Optic Disc Pit		Can be congenital or acquired, and is mostly asymptomatic. May present with PVD or serous macular detachment. Asymptomatic pits require annual assesment. Urgent referral needed if macular serous detachment present.	**Community Service - if asymptomatic** **Community Service - if MSD present**
Optic Neuritis		Sudden loss of vision (partial or complete), or sudden blurred or “foggy” vision and pain on movement of the affected eye. Colour vision may be altered in affected eye, with colours appearing subtly washed out. Frequently there is no abnormal appearance of the nerve head though it may be swollen in some points.	**Hospital Service**

Swollen Disc		Disc margin is blurred and there is hyperaemia with or without splinter haemorrhage(s). Initially, vision, colour vision and pupillary responses are normal, but the blind spot is increased on field testing. Chronic cases have greater field and vision loss. IF THIS IS BILATERAL THEN PAPILLOEDEMA SHOULD BE CONSIDERED AND MANAGEMENT AS PER SUSPECTED RAISED INTRACRANIAL PRESSURE	**Hospital Service**
Tilted Disc		The optic disc is elevayed and the inferonasal disc is posteriorly displaced, giving an oval-appearing optic disc. There is an inferonasal peripapillary crescent and situs inversus of the vessels as they emerge from the disc. THIS IS NORMAL – THERE IS NO NEED TO REFER	**Community Service**

Referral Guidelines – The Retinal

This list is a long way from being comprehensive and does not include common diseases such as;

- Age-related macular degeneration wet and dry forms
- Uveitis
- Choroidal metastases
- Melanoma
- Traumatic injuries e.g. commotion retinae
- Drug related retinopathies
- Inherited retinal diseases (only a random few mentioned e.g. Bests/RP – there are a huge number of these including numerous maculopathies)
- Hypertensive retinopathy
- Macroaneurysms
- Chorioretinal folds

Condition		Details	Appropriate Level of Care
Best Disease		Rare disease which is asymptomatic in early stages to decreased VA as low as <6/60. Has appearance of egg yolk like lesion at the posterior pole which might be replaced be scarring. NEEDS ROUTINE REFERRAL TO HES TO EXCLUDE DIFFERENTIAL DIAGNOSES OF CSR, VMT. WOULD NEED EDI OCT PLUS ELECTRODIAGNOSTICS. THEN NEEDS COUNSELLING RE GENETIC TESTING, SECONDARY CNV AND MODES OF INHERITANCE	**Community Service.** HOSPITAL SERVICE
Branch Retinal Artery Occlusion		Sudden onset of loss of visial acuity or field of vision. May be preceded by shorter episodes from seconds to minutes. Opacification of inner retina in distribution of blocked branch retinal artery. Sometimes embolus might be visible.	**Hospital Service**
Branch Retinal Vein Occlusion		Presents with blurred vision, visual field loss metamorphopisia of floater. It commonly occurs in 6 to 8th decade with risk factor of age, hypertension, glaucoma, cardiovascular disease and diabetes. Lots of retinal haemorrhage, cotton wool spots, vessel tortousity, and retinal oedema. NEEDS GONIOSCOPY URGENTLY TO EXCLUDE RUBEOSIS	**Hospital Service**
Bulls Eye Maculopathy		Central foveolar hyper pigmentation surrounded by a depigmented zone giving appearance of a bulls eye lesion. Causes inclue chloroquine toxicity and Stargardts Disease. PLUS NUMEROUS OTHER DIFFERENTIALS – SO NEEDS REFERRAL TO HES TO ESTABLISH DIAGNOSIS ; BULL'S EYE MACULOPATHY IS A DESCRIPTIVE TERM NOT A DIAGNOSIS	**Community Service** HOSPITAL SERVICE

		Urgent referral if patient taking hydroxychloroquine IF HYDROXYCHLOROQUINE TOXICITY IS SUSPECTED AND IT HAS ALREADY STARTED TO REDUCE VISION / DAMAGE THE MACULA IT SHOULD BE STOPPED.	**Community Service** HOSPITAL SERVICE
Central Retinal Artery Occlusion		Painless, sudden and severe loss of visionin one eye. Might be associated with a history of Amaurosis fugax. Can be as a result of atherosclerosis but it may be related to Giant Cell Arteritis in elderly. In younger patients it is due to collagen vascular disease, vasculitis, coagulopathy or embolic disease.	**Hospital Service**
Central Retinal Vein Occlusion		Presents with marked visual loss; the fundus showing retinal hemorrhages, dilated tortuous retinal veins, cotton-wool spots, macular edema, and optic disc edema. AS ABOVE NEEDS URGENT HES ASSESSMENT INCLUDING GONIOSCOPY AND IOP CHECK TO EXCLUDE RUBEOSIS	**Hospital Service**
Central Serous Retinalpathy		Unilateral round or oval macula detachment giving blurred vision and postive scotoma. VA improves with weak +ve lens. Typically affects young or middle age males often Type A. Causes include stress, BP, steriod use. NEEDS URGENT HES ASSESSMENT TO EXCLUDE DIFFERENTIALS SUCH AS WET AMD AND INFLAMMATORY DISEASE. TREATMENT IS NOW AVAILABLE FOR CSR (PHOTODYNAMIC THERAPY) AND SO ASSESSMENT COUNSELLING IS NECESSARY	**Community Sevice** HOSPITAL SERVICE
Cystoid Macula Oedema		Fluid accumlation in macular area that can be asymptomatic or have decreased VA, metamorphopsia and scotomas. Loss of foveal reflex and contour on high magnification. AGAIN THIS IS NOT A DIAGNOSIS BUT A DESCRIPTIVE TERM. THE CAUSE OF THE CYSTOID MACULAR OEDEMA WILL DETERMINE THE URGENCY OF REFERRAL EG PSEUDOPHAKIC CMO NEEDS A SEMI-URGENT REFERRAL WHEREAS CMO DUE TO RETINAL VEIN OCCLUSION WOULD NEED A MORE URGENT REFERRAL	**Hospital Service**
CHRPE **(Congenital hypertrophy of Retinal Pigment Epithelium)**		Common benign lesion can be either typical (solitary or grouped) or atypical. **Typical** CHRPE are unilateral, flat, dark grey or black, well demarcated round or oval lesion 1 to 3 DD in size. Grouped lesions similar and often organised in a pattern simulating animal footprint. NEEDS A REFERRAL TO HES TO CONFIM THE DIAGNOSIS (EXCLUDING LIFE-THREATENING DIFFERENTIALS EG	**No referral required -** INCORRECT

		MELANOMA) **Atypical** lesions are multiple, bilateral, widely separated, frequently oval or spindle shaped lesions of variable size associated with hypopigmentation at one margin and have haphazard distribution. Systemic implications as associated with familial adenomatous polyposis (FAP)	**Community service** HOSPITAL SERVICE
Choroidal Nevus		Present in about 5 to 10% of Caucasians but rare in dark skinned races.	**Serial photography or routine referral to Community Service or Hospital Service if unsure**
		Typical Nevus – It is usually post-equatorial, oval or circular, slate blue or grey lesion with detactable but not sharp borders. Dimensions are <3mm in diameter and <1mm in thickness. Associated with surface drusens. HOW ARE THEY PROPOSING TO CHECK THE THICKENESS PRIOR TO REFERRAL?	
		Atypical Nevus – might be amelanotic, a halo nevus. THERE ARE PUBLISHED GUIDELINES TO DETERMINE THE RISK OF MALIGNANT TRANSFORMATION OF A NAEVUS TO A MELANOMA BASED ON THE COMMS STUDY – THESE DETAILS ABOVE ARE INACCURATE. NO MENTION OF SUB-RETINAL FLUID, LIPOFUSCIN, PROXIMITY TO DISC AND B-SCAN ULTRASOUND DIAGNOSIS	**Community Service**
		Suspicious Nevus – Symptomatic including blurred vision, metamorphopsia, field loss. Dimensions are >5mm in diameter and >1mm in thickness. Traces of surface orange pigment. Absence of surface drusens on a thick lesion or margin of the lesion at or near optic disc. DOES NOT HAVE TO BE SYMPTOMATIC AT ALL.	**Hospital Service**
Diabetic Retinopathy		Non-proliferative retinopathy	**Referral to Diabetic Retinal Screening**
		Servere non-proliferative retinopathy or Clinically significant maculopathy	**Hospital Service**
		Proliferative diabetic retinopathy needs an urgent referral WE NOW TREAT DIABETIC MACULAR OEDEMA WITH INTRA-VITREAL AGENTS MORE OFTEN THAN LASER SO THE TERM “CLINICALLY SIGNIFICANT MACULOPATHY” IS MEANINGLESS IN THIS CONTEXT. OCT DIAGNOSIS IS PIVOTAL. PATIENTS SHOULD BE REFERRED TO HES VIA DIABETIC SCREENING.	**Hospital Service**

		THEY SHOULD BE EITHER UNDER THE CARE OF DRS OR HES SO THERE IS LITTLE ROLE FOR COMMUNITY OPTOMETRISTS IN THEIR CARE.	
Epiretinal Membrane		Membrane develops at the vitero-retinal interface and appears as irregular macula light reflex and sheen. Best detacted using RF light. Often mild metamorphopsia with slightly reduced VA but can be asymptomatic. NEEDS ASSESSENT BY HES TO ESTABLISH WHETHER THE ERM IS SECONDARY TO AN UNDERLYING RETINAL VASCULAR DISEASE OR WHETHER IT IS ASYMPTOMATIC. ALSO PATIENT NEEDS COUNSELLING RE RISKS AND BENEFITS OF TREATMENT. OCT ASSESSMENT IS REQUIRED TO STAGE THE DISEASE	**Community Service** HOSPITAL SERVICE
Lattice Degeneration		Present in about 8% of population and 40% of myopes over -5.00. Seen as sharply demarcated spindle-shaped areas of retinal thinning between equator and vitreous base. Round holes common.	**Community Service**
Macular Hole		Typically in 6th/7th decade and more common in females. Can appear as either a severe impairment of central vision or as a relatively asymptomatic deterioration. TREATABLE DISEASE MANAGED BY HES WITH EITHER VITRECTOMY OR JETREA (NICE TA). NEEDS CLASSIFICATION VIA OCT IN HES .TO BE MANAGED BY THE COMMUNITY SERVICE AN OCT AND VITREORETINAL SURGEON WOULD BE REQUIRED.	**Community Service** HOSPITAL SERVICE
PVD Uncomplicated		Patient presents with recent new floaters in the absence of photopsia, anterior vitreaous pigment cells or retinal breaks. NEEDS INDIRECT OPHTHALMOSCOPY WITH SCLERAL INDENTATION AND/OR 3-WAY MIRROR EXAMINATION IN HES TO ESTABLISH WHETHER THE PVD IS "UNCOMPLICATED"	**Community Optometrist**
PVD Uncomplicated		Patient presents with sudden recent photopsia and floaters. No pigment cells in vitreous or retinal breaks evident. Also if patient has high risk factor such as high myopia or history of RD in other eye. PVD NEEDS SPECIFIC LOCAL SUPPORT BY HES OPHTHALMOLOGIST - MUCH DEBATE CAN BE HELD AS TO TIMESCALE FOR ONGOING PROBLEMS AND WHAT CONSTITUTES ADEQUATE OCULAR EXAM	**Community Service** HOSPITAL SERVICE
PVD Complicated		Patient presents with recent , sudden, onset floaters of photopsia. Pigment cells in anterior vitreous or retinal break.	**Hospital Service**

Retinal Detachment		Risk factors include myopia, cataract surgery or laser, trauma, family history or detachment in other eye.	**Hospital Service**
Retinal Haemorrhages		If retinal vascular disease present such as non proliferative diabetic retinopathy, CRVO or BRVO. If flame shaped putside optic disc. THIS CONTRADICTS THE ABOVE WHERE CRVO AND BRVO ARE "YELLOW"	**Hospital Service**
		If uncontrolled glaucoma or normal tension glaucoma present or especiallt if flame shaped and localised near the optic. THIS AGAIN CONTRADICTS THE ABOVE WHERE AN OPTIC DISC HAEMORRHAGE IS "GREEN" NOT "YELLOW"	**Hospital Service**
		If infection suspected, haemorrhages are white centred,papilloedema present or any intracranial disease is suspected. IS THIS SAYING THAT IF AN INFECTION IS SUSPECTED A ROUTINE / "GREEN"? SUSPICION OF OCULAR INFECTION OR RETINAL INFLAMMATION WARRANTS AN URGENT REFERRAL.	**Hospital Service**
Retinitis Pigmentosa		Diagnosis is by bilateral night blindness with peripheral field defect. Presents with arteriolar attenuation, retinal bone spicule pigmentation and waxy pallor of disc. AGAIN WE ARE NOW IN AN ERA OF GENETIC DIAGNOSIS AND COUNSELLING – THESE ARE COMPLEX DISEASES REQUIRING OCT/AUTOFLUORESCENCE/ELECTRODIAGNOSTICS AND NONE OF THESE TOOLS NOR THE EXPERTISE TO INTERPRET THEM IS AVAILABLE IN THE COMMUNITY. SYNDROMIC RP IS ASSOCIATED WITH SYSTEMIC COMPLICATIONS EG METABOLIC DISORDERS WHICH NEED SPECIALIST INVESTIGATION AND MANAGEMENT	**Community Service** HOSPITAL SERVICE
Retinoschisis		Present in 5% of population over 20 years more in hypermetrope (70%) Due to spiltting of nerve fibre layer mainly in infero-temporal periphery. RelativelY immobile. IT IS SOMETIMES HARD TO DIFFERENTIATE A RETINOSCHISIS FROM A RETINAL DETACHMENT. IN THE PRESENCE OF RISK FACTORS SUCH AS HIGH MYOPIA A HOSPITAL REFER IS NEEDED.	**Community Service** HOSPITAL SERVICE
Tamoxifen Retinopathy		This is a specific anti oestrogen used in the treatment of selected cases of CA breast. Presents with bilateral, yellow crystalline ring like macular deposits. DIFFERENTIAL DIAGNOSIS NEEDS HES EVALUATION.	**Community Service** HOSPITAL SERVICE

Toxoplasmosis		Toxoplasma gondii is a parasite which is hosted in cats and livestock. Mainly asymptomatic finding with floaters or decreased VA but vitritis and retinitis in severe phase may give fog apperance. THE ABOVE STATEMENT MAKES NO SENSE; PATIENTS WHO HAVE FLOATERS AND DECREASED VA ARE NOT ASYMPTOMATIC AND SHOULD BE REFERRED TO HES AS REQUIRES CAREFUL ASSESSMENT BY AN OPHTHALMOLOGIST.	**Community Service**
		Old atrophic scars with pigmented borders.	**Hospital Service**
		Acute phase or if lesions invlove disc, macula, papillomacular bundle or threatening a major blood vessel.	
		Fog apperance or if immunocompromised	**Hospital Service**

Referral Guidelines – Orthoptics (All referrals for hospital services)

Condition		Details	Appropriate Level of Care
Esotropia **Constant intermittent or accommodative**		Refer if child under 7 with refractive error corrected if present. Don't refer in over 7's, unless parents still wishes to attempt amblyopia treatment despite unlikely improvement or they wish to consider cosmetic surgery to improve appearance of squint. All referrals should be with any refractive error corrected.	**Hospital Service**
Exotropia **Constant**		Refer children under 7 with a constant exotropia, but don't correct any low hypermetropic error. Refer at any age if they wish to have cosmetic surgery.	**Hospital Service**
Exotropia **Intermittent**		Refer children under 6. Children of 6 and older can be referred if amblyopic, but if vision good and equal only refer if divergence is noticed enough for parents/child to be considering surgery.	**Hospital**
Vertical Strabismus		Usually associated with ocular motility defects.	**Hospital**
All Squints		Any squint which is sudden onset, with or without symptoms, especially if associated with ocular movement problems needs referring as a priority.	**Hospital Service**
Strabismic Amblyopia		Refer if child under 7 Children over 7 only if parents CLEARLY wish to attempt amblyopia treatment. Glasses can be obtained to allow reflractive adaptation to begin.	**Hospital Service**
Anisometropic Amblyopia		Refer if vision does not equalise with glasses.	**Hospital Service**
Ocular Motility Defects		Refer ocular motility defects as a routine if uncovered during your routine examination. If defects are the reason for patients visit refer as priority	**Hospital Service**
Convergence Insufficiency		Only refer if patient has symptoms.	**Hospital Service - but only if required**
Nystamus Ptosis etc		Refer routinely unless sudden onset.	**Hospital Service**
Refractive Errors		Only refer is vision fails to improve/equalise as expected, or the error is very high	**Hospital Service - but only if required**

The panel recommends adding "beware any reduction in visual acuity" to the following

- acute allergic conjunctivitis
- bacterial conjunctivitis
- blepharitis

The panel also recommends that every child who has a squint associated with poor vision should be referred for dilated fundoscopy to exclude the presence of ocular pathology.