Ophthalmology – Glaucoma Patient Pathway June 2005 Updated Feb 2008

Patient Presentation

Suspected glaucoma

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Community Optometrist (GOS)

Perform full glaucoma assessment:

Visual Acuity
Visual Field x2
Intra-Ocular Pressure
A/C Depth (S/L)
Disc assessment
History

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- **ON + IOP + Field +** → **Primary Open-Angle Glaucoma** → Secondary Care
- **ON - IOP + Field +** → **Primary Open-Angle Glaucoma** → Secondary Care
- **ON + IOP - Field +** → **Normal Tension Glaucoma** → Secondary Care
- **ON - IOP+ Field -** → **Ocular Hypertension**
- **ON + IOP + Field - *** → **Ocular Hypertension**
  - Ocular Hypertension → If IOP **= or >30** → Secondary Care
  - Ocular Hypertension → If IOP <30 → Repeat field/ IOP in 6 months
- **ON - IOP - Field +** → Reliable & **repeatable** field → Secondary Care
- **ON - IOP - Field +** → Low reliability → Community Optometrist (GOS)
- **ON + IOP - Field -** → If Concern → Secondary Care
- **ON + IOP - Field -** → Confident with diagnosis → Community Optometrist (GOS)
- **ON - IOP - Field -** → Community Optometrist (GOS)

Secondary Care

Refer to Hospital Eye Service

Community Optometrist (GOS)

Normal routine community review at optometrist practice.

Useful Information for Patients

NHS24: 08454 24 24 24
www.nhs.uk
www.doctoronline.nhs.uk
www.patient.co.uk

Secondary Care

Primary Care

ON: Optic nerve
IOP: Intra-Ocular Pressure
VF : Visual field

*In patients with OHT, IOP < 30, ON +ve and VF –ve it is important that the field used is threshold related.

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Guidance notes for Glaucoma Pathway

In order to provide proper eye care in the community and reduce the number of outpatient attendances, shared-care schemes have been put into practice in the UK with the goal of monitoring visual acuity, intraocular pressures, optic disc appearances and visual fields by a non ophthalmologist. Schemes have been implemented successfully with optometrists and orthoptists. While the ultimate responsibility for the management of the glaucoma remains with the consultant ophthalmologist responsibility for glaucoma tests and certain management decisions are delegated and follow a care pathway.

In developing this pathway we have recognised that the diagnosis and treatment of primary open angle glaucoma in any given patient depends on the assessment of a range of variables all of which may be subject to inter-observer and inter-test variation. At the initial assessment by the community optometrist we recommend a range of tests which are considered to be most valuable. It will often be necessary to repeat the initial tests on several occasions before reaching a conclusive judgement.

Patients suspected of suffering from glaucoma will undergo a routine GOS ocular examination , including visual acuity testing, slit-lamp examination, applanation tonometry, optic disc assessment and visual field testing.

1- Visual acuity should be recorded for distance with full correction. The refractive error should be recorded.

2- IOP Goldman or Perkins applanation tonometry is **mandatory**

3- Visual field. A ***screening field*** may be performed but if field loss is found and is the only abnormal criterion, a threshold field should be performed before referral. It is recommended that one of the following instruments is used for field analysis: Dicon 400, Henson Bowl perimeter, Octopus, and Humphrey Visual Field Analyser (600 or 700 series).

4 -Pachymetry. In the Ocular Hypertension Treatment Study (OHTS) there was a strong association with central corneal thickness (CCT) and progression to POAG; using multivariate analysis subjects with thinner corneas had a hazard risk ratio of 3.9 compared to thickest corneas. CCT-corrected tonometry readings are therefore considered valuable when IOP measurements are high and treatment is being considered, since they will uncover falsely high readings caused by thick corneas. Ultrasonic pachymetry is recommended for the measurement of corneal thickness. Pachymetry is not widely available and is currently not deemed necessary in the provision of the care pathway as designed.

5-Optic disc assessment It is recommended that careful disc assessment by slit lamp fundus biomicroscopy with a 60D or 78D condensing lens and/or stereo disc imaging is performed. Where disc imaging is not possible a diagram of the disc appearance should be recorded. + OD means enlarged C/D ratio, abnormal neuroretinal rim or a disc haemorrhage.

6-A/C Depth We have not advised that the glaucoma practitioner trains in gonioscopy as this is a skill gained after considerable period by ophthalmologists. The HES will be responsible for gonioscopy. Where a practitioner finds a particularly shallow A/C (i.e. limbal chamber depth is less than ¼ of the peripheral corneal thickness by the van Herrick technique) or is concerned about the risk of angle closure glaucoma referral to the HES is recommended

7-History It is recommended that a local protocol is developed with the agreement of the ophthalmologist. This should take account of visual symptoms, family history and general medical history and drug history.

8-Other risk factors Family history, PXF.

9 -Fast track and urgent cases. Any patient with an IOP > 40mmHg should be referred as an emergency. Suspected angle closure glaucoma or uveitis should be referred as an emergency or urgently as appropriate.

10-Secondary Glaucoma All secondary glaucoma will be referred to the HES.

11-Discharge It must be appreciated that discharge does not exclude the risk of glaucoma in the future and there will still be a need for routine optometry screening checks.

12-Communication It is recognised that efficient communication between the HES and the glaucoma practitioner is essential. This is likely to be facilitated by direct referral to the HES.