The ROYAL COLLEGE of OPHTHALMOLOGISTS

Glaucoma Society
United Kingdom
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Glaucoma Management Plans during Recovery Phase of COVID-19

This guidance has been developed by the RCOphth COVID-19 Review Team and UKEGS in response to the pandemic and may be subject to change.

Introduction

The guidance provides pragmatic advice on recommencing care for glaucoma patients based on clinical expertise from a variety of clinical settings around the UK. The scope of this document is to provide advice for the 'recovery phase' rather than the acute lockdown phase. We anticipate this phase will cover perhaps the next 6 months or so. Some of the points will be germane to longer term 'post COVID-19' services.

Many units were already managing a backlog of outpatient reviews and further delays due to COVID-19 will have increased the risk of irreversible vision loss in a proportion of patients. In addition, the requirements for social distancing and increased infection control procedures will affect the capacity for ongoing care. At the time of writing, many units only have approximately 25% capacity, with an anticipated increase to 50% in the coming months. It is clear that simply returning to the original models of care will not be an option in the foreseeable future, if ever. Given this, a pragmatic approach in managing patients will be required, with potential deviation from normal practice.

One aim of this document is to describe potential approaches to patient care, including how to balance the risk of visual harm from not attending against the risks of COVID-19 infection from attending hospital. A further aim is to clarify the resources that units will need to move forward and the requirements for more sustained service transformation. The current disruption to normal care may give an opportunity for more rapid transformation than might have otherwise been the case. There is an opportunity to consider how to work with the wider workforce, primary care optometrists and, additionally, to consider the development of technician-based imaging with remote review of data by a range of trained clinicians (virtual clinics). Suitable models of care will depend on geography, the needs of local populations and available workforce. New patient pathways outside the hospital eye service (particularly if 'outsourcing') will require new and robust commissioning / funding and governance arrangements. Redesign of services will require the provision of more equipment, as well as necessitating the increased use of electronic medical records and communication methods. This can only take place with support from hospitals

and health boards, commissioners and local clinicians. This will come at a financial cost and with a not inconsiderable burden of training, assessment and monitoring. It is hoped that the recent establishment of the NHS England & Improvement Eye Care transformation programme will effectively address these barriers in England.

General principles
A number of general principles apply:

Risk stratification. Efforts should be focussed on patients with the highest risk of sustaining irreversible visual loss. It is imperative, therefore, that these patients are identified as quickly as possible and appropriate management plans are implemented. It is important to identify which actions are most likely to confer benefit and focus on these first. Appropriate risk stratification is essential. In the short term, this may most easily be done by identifying individuals with shorter planned follow up intervals. Moving forward, a more complete risk stratification process is required and the recently published RCOphth and UKEGS risk stratification guide, GLAUC-FAST-STRAT, should be used.

Clinic models. Where a 'non-traditional' clinic model is used, there are a number of approaches (which may be used in combination) to deliver care. They include the following:

- Appropriate patients may be seen by optometrists in a community setting, acting as autonomous practitioners where the appropriate qualifications, skills and clinical governance arrangements are available;
- Patients may be seen in a community setting for clinical tests, either by community optometrists or technicians (facilitated by secondary care, or third-party providers). Decision making and communication with patients can then take place remotely from the hospital eye service.
- Current hospital based 'virtual' clinics can be expanded and re-planned to allow an increased throughput whilst allowing for appropriate social distancing. For patients seen in technician-led virtual clinics, consideration should be given to the necessary frequency of ocular examination by a trained health care professional.

Face to face value. When deciding whether to provide a face to face assessment, clinicians need to balance the tension between the need to minimise 'exposure time' for patient and clinician to reduce COVID-19 transmission and the need to maximise 'value' from each attendance, particularly in light of uncertainties about when the next face to face assessment will be possible if there are further lockdowns or increasing capacity issues.

Lost to or delayed follow up. Patients that are lost or delayed in the system are at high risk of visual loss and NHS England has mandated the implementation of 'failsafe officers' to prevent this. This action has not been fully implemented in many trusts but should be a high priority. Where this has not been fully implemented, it should be prioritised on a departmental risk register. It is important to keep a record of total delays to planned assessments to ensure that cumulative delays do not lead to loss of vision; this is particularly important in low risk patients, monitoring of whom might otherwise be serially postponed. Trusts in England should support eye units to record and report this using electronic systems which are able to report against the

RCOphth and NHS England recommended assessment of patients seen within 25% of their planned follow up interval.

Job plans. Clinicians are likely to be working differently, delivering much more care through non-patient facing consultations, virtual reviews and other non-traditional clinical approaches. This work should be included in job plans with appropriate time and resources and clinics properly profiled and recorded on patient administration systems.

Prescriptions. Use of hospital pharmacies should be avoided for all but urgent prescriptions. Treatment requests can be made by 'prescription request form' (widely available in many areas) or GP letter.

New Patients:
Where a glaucoma referral filtering or referral refinement service is not available, it is recommended that one should be set up. At a minimum, this should involve Goldman applanation tonometry and threshold visual fields repeat measurements. The pathway can be delivered using primary care optometrists and can be commissioned either directly from secondary care or in partnership with commissioners. These services can significantly reduce false positives, are strongly recommended by NICE and have been developed to varying degrees and in varying ways in different health communities.

In the short term, enhanced hospital-based triage before a patient is given an appointment, is advised. Data transfer (OCT, VF, fundus images) using secured NHS.net emails or other NHS approved secure IT systems may enable improved risk stratification allowing safe deferral of low risk cases as needed. Unfortunately, in many areas, the quality of information provided at referral is often insufficient to allow effective triage.

Virtual clinics are suitable for the majority of new patients. However, a small group of patients with newly presenting advanced glaucoma or with marked progression / very high pressure / recent visual loss area should have careful face to face examination by a senior clinician; there may be secondary pathology which would be otherwise difficult to detect and the risk / benefit ratio is different than for the majority of patients.

Empirical treatment of glaucoma suspects referred directly from primary care is not recommended. The likelihood of conferring benefit by reducing potential significant visual field decline within the next year is extremely low. Furthermore, treatment may give the illusion of 'control'. Patients will have to be assessed formally in the future to see if the empirical treatment was actually required, creating a 'bow wave' of future work, and those patients that have an adverse effect of treatment will create a further treatment burden. It may be reasonable to recommend treatment from a virtual assessment or referral filtering pathway. This approach is already an established pathway in some centres but relies on quality assurance of the assessment and resultant clinical information.

Management of angle closure

There have been significant changes in the evidence base for the management of primary angle closure and some of the following advice represents a significant variation from traditional practice. A significant number of new referrals are for suspect 'occludable angles'. To help facilitate management of these referrals, and in expectation of more extensive guidance on PACS/PAC/PACG due in the near future from the RCOphth, the following is suggested as a potential approach:

In any patient with visually significant cataract, cataract extraction remains the preferred option to also treat all angle closure, with an occludable angle lowering the threshold for surgery.

Primary angle closure suspect (PACS): defined as an 'occludable angle' (no gonioscopic view of angle structures for 270 degrees or more) with normal pressure, no peripheral anterior synechiae (PAS) and no glaucomatous cupping does not need follow-up or laser peripheral iridotomy (LPI), unless 'high risk' (e.g. being regularly dilated, on certain drugs, family history etc). The majority of such patients should stay in the community under annual optometric review for IOP & screening field, with an Acute Angle Closure symptoms warning.

- Conventionally, to exclude PAS or diagnose PAC with PAS, gonioscopy was recommended. However, PAS alone is a poor predictor of visual loss. Therefore, it is reasonable to NOT see 'low risk' narrow angles where there the referral indicates normal IOP, no glaucoma and no other 'high risk' factors.
- Diabetics and other 'high risk' may have LPI, then be discharged from glaucoma review.
- Avoiding referral of all but high risk PACS has the potential to reduce new glaucoma referrals by up to 25%.

Primary angle closure (PAC): defined as an 'occludable angle with elevated IOP and / or PAS but no glaucoma. If IOP is under 30 mmHg, offer LPI and treat IOP as one would otherwise. If IOP is normal then patients can be safely discharged to optometry for annual review.

Primary angle closure glaucoma (PACG) & High IOP PAC (>30 mmHg): Defined as angle closure with glaucomatous change. Offer lens extraction or LPI as a high-moderate priority pathway. LPI may be offered to temporise if lens extraction is not possible due to reduced theatre access; in cases with significant PAS, manage the possibility of a pressure 'spike'. In units with pooled lists, consideration should be given to keeping the surgical care of these patients within the glaucoma service.

Follow-Up Patients

The reduction in capacity means that consultant face to face appointments should be used only when alternative review options do not exist. Typically, this means patients with more acute or complex issues. Patients in the immediate perioperative period, those with complex disease, those with high risk of visual loss and those that cannot

be examined in a community or a ‘virtual’ setting benefit most. Continuous stratification is required to identify those patients who are at high risk of / are developing visual loss with awareness that risk levels can change over time for patients.

Many patients can be safely managed without having to be seen in a standard hospital outpatient clinic. Special consideration should be given to those with reduced capacity for decision making, and involving their relatives and carers.

Visual field capacity is much reduced in the current environment and should be used for patients where there is expectation that it will make a meaningful contribution to management. There is evidence that visual field testing is performed with equal frequency in ocular hypertensives, glaucoma suspects and patients with glaucoma. Consider not performing frequent or regular visual field tests on ocular hypertensive patients with normal anatomy. Imaging will have a key role for these patients. Where insufficient visual field capacity still exists, it may be necessary to purchase more machines in order to allow safe throughput.

The NICE guidelines for the management of glaucoma suspects and OHT patients support long follow up intervals and there is evidence that these guidelines are not consistently followed with over frequent review. NICE guidelines should be followed and use longer follow up intervals for low risk which will ameliorate the capacity mismatch. In some eye units, 12-monthly is the least frequent follow-up interval, whereas 18 or 24 months may be more appropriate for many lower risk patients and arrangements need to be made to be able to book for longer than 12 months if clinically appropriate.

Patients listed for surgery

The previously published RCOphth / UKEGS glaucoma surgery guidelines give detailed advice for the surgical management of patients with glaucoma in this period. Consideration should be given to balancing the risks of COVID-19 infection (for clinical staff and patients) with the benefits of successful glaucoma surgery. We need to be mindful that the first procedure will almost always offer the best opportunity for long term control. Given the anticipated changes in COVID-19 incidence (decreasing or increasing), the risk / benefit decisions will change over time and the resultant decision-making process will be challenging.

Refs:

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