

### Explore the impact of the NICE glaucoma guidelines on referral activity

#### Background

Glaucoma is a fairly common, potentially sight threatening condition usually identified during a sight test in primary care optical practice. Whilst glaucoma cannot be prevented, early intervention can reduce the risk of sight loss and eye health specialists recommend that all adults over the age of 40 should have a regular sight test, to include a measure of intraocular pressure (IOP). There are multiple risk factors associated with glaucoma but IOP is an important one: the risk of developing glaucoma increases with elevated IOP.

#### Challenge

In April 2009, NICE published clinical guideline [CG85] which resulted in people with an IOP of over 21mmHg at sight test being referred to the hospital eye service for further investigation.

Ocular hypertension (OHT) is defined in the NICE guidance as repeatable IOP over 21 mmHg as measured by Goldmann applanation tonometry (GAT). By defining the criteria and procedures for diagnosis, NICE CG85, by implication, created a referral threshold.

Previously the threshold for referral based on IOP alone was set by local ophthalmologists and in many cases was around 25 mmHg. This effective lowering of the threshold led to an increase in referral activity to glaucoma clinics across England. However, a significant number of patients were subsequently found not to require any intervention and were considered "false positive" referrals.

#### **The impact of glaucoma referral refinement criteria on referral to, and first-visit discharge rates from, the hospital eye service: the Health Innovation & Education Cluster (HIEC) Glaucoma Pathways project, published 2013**

*The NICE guidelines for patients suspected of having glaucoma and ocular hypertension (published in April 2009) and the subsequent advice by the Association of Optometrists resulted in a marked increase in patients referred with a suspicion of glaucoma or ocular hypertension (a risk factor for glaucoma). Approximately 40% of these referrals made directly to the hospital service (the 'traditional pathway') are subsequently found to not have glaucoma and are subsequently discharged ('false positive referrals').*

#### Approach

In May 2009, LOCSU published a model glaucoma repeat IOP pathway to support commissioning discussions at a local level. The aim of the pathway was to reduce the false positive referrals and improve referral accuracy by allowing IOP to be remeasured using gold-standard methods before making a referral decision. Only people with repeatedly raised IOP on applanation tonometry would require referral.

Since 2009, across England local stakeholder groups have developed local solutions to help reduce the number of false positive referrals to glaucoma clinics. Building on the local innovation and service evaluation, LOCSU have continually updated their published model to support service improvement in a consistent and deliverable way.

Local success soon led to national recommendation:

**Commissioning better eye care: clinical commissioning guidance from The College of Optometrists and The Royal College of Ophthalmologists, published 2013**

*“Repeat measurement schemes involving community optometrists should be established as a priority. They can significantly reduce false-positive referrals into the hospital eye service and are relatively easy to introduce.”*

**A change in NICE Guidance – coordinating rapid implementation**

In November 2017 NICE guideline [NG81] replaced CG85. This updated guidance included recommendations on testing and referral (case-finding) and increased the referral threshold for IOP to 24mmHg or more, as well as recommending that more sophisticated case finding services were introduced in primary care.

A number of reasons local areas weren't likely to immediately adopt the new IOP threshold were identified:

- Interpreting the new guideline and understanding its impact on the local pathway
- Local stakeholder discussions and contract variations
- IT changes – logic in many IT platforms controlled the referral pathway, automatically referring anyone with IOP above 21mmHg

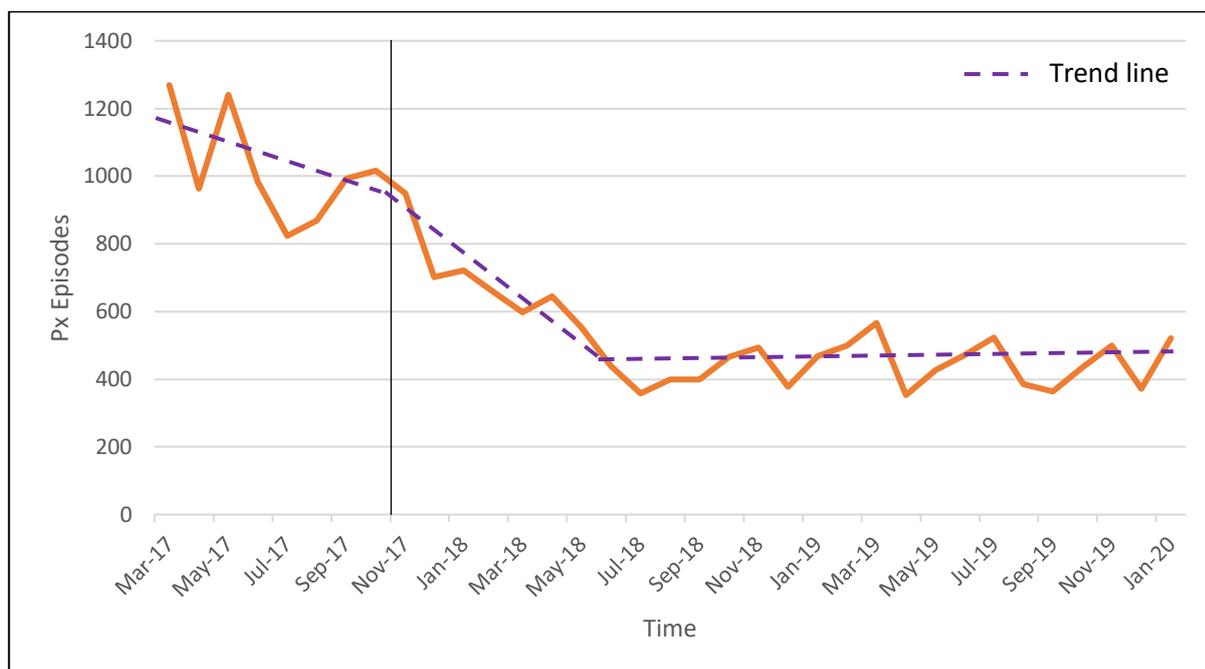
To address these issues, in the same month the guideline was issued LOCSU published a briefing document which went to all Local Optical Committee Chairs, Local Eye Health Networks and Primary Eyecare Company directors.

This detailed the implications of the recent NICE Glaucoma Guideline (NG 81) for locally commissioned Glaucoma Repeat Readings and Referral Refinement services in England and set out the steps to take if there is a Repeat Measures service commissioned locally and provided a template letter to be sent to commissioners to explain the changes that are required to the referral pathway. This streamlined the interpretation of the new guideline and kickstarted local stakeholder discussions. Subsequently, LOCSU issued further guidance to support a manual override of IT system logic to support the new automatic referral threshold.

## The Impact

The NICE guideline change was delivered almost immediately with a reduction in referral activity into the hospital eye service glaucoma clinics commencing ahead of the guideline publication (the change had been anticipated) and continuing into Mid – 2018. After this time, the full impact of the change appears to have been realised in primary care as the number of referrals into glaucoma clinics following repeat readings services stabilised.

However, the impact of this change on outpatient episodes and hospital activity will not have been realised quite so immediately. With patients across England waiting many weeks for appointments, hospital colleagues will not have felt the impact until much later.



**Data source** – LOCSU data repository (collating data from Primary eye care companies across England)

Data above shows:

- Prior to NICE NG81: average monthly referral rate of 1,012 Px episodes
- In 2019: average monthly referral rate of 447 Px episodes
- Over the 5 months following the introduction of NG81: 34% reduction in Px episodes
- Significant drop off in referrals from November 2017 until May 2018
- Following May 2018 referral numbers stabilise
- Average monthly figures from May 18 show a 56% reduction in Px episodes compared to pre-NICE NG81

**Gunn PJG, Marks JR, Konstantakopoulou E, et al 'Clinical effectiveness of the Manchester Glaucoma Enhanced Referral Scheme' published by British Journal of Ophthalmology 2019;103:1066-1071.**

*"It is clear that GERS is highly successful in reducing the FP rate from community referrals for suspect glaucoma. The FN evaluation in this study shows that GERS is clinically effective and very safe, offering reassurance to commissioners wishing to implement community pathways"*

FP refers to False Positive and FN refers to False Negative

## **Conclusion**

The changes introduced in November 2017 led to a significant drop in referrals to glaucoma clinics; data shows a reduction of referral activity of 56% from commissioned glaucoma repeat readings services compared to pre NICE NG 81.

Primary care optical practice is responsive to changes in NICE clinical guidance and able to adopt simple pathway changes in a timely manner.

The reduction in hospital outpatient activity will have been slower and more gradual due to system lag.

Glaucoma referral filtering (such as repeat measures) delivered in primary care should be commissioned at scale to help support the ophthalmology outpatient transformation programme deliver their aims to safely reduce outpatient activity and deliver more timely care.