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Clinical Commissioning Group

Ocular Hypertension (OHT) Referral Refinement Scheme

Redesign Business Case - Addendum

Supplementary Information – June 2013

The business case enclosed was reviewed by the Northern Locality Executive Board in November 2012, and approval was given to proceed with the proposed scheme. Since then it has been passed to the Ophthalmology C2C (now the CPG) with a view to establishing the service in the community and meetings were set up in order to negotiate the contract and the final cost of the refinement scheme (as specified by the work carried out in the community by local ophthalmologists).

The negotiation of the contract took place between Tony Layton, Contract Manager, Northern Locality and Paul Bradford, Devon LOC in conjunction with Dr Anneke Dissevelt and Murray Heath.

It became clear from initial meetings that the starting point for the price of the scheme offered by the Northern Locality and the price acceptable by the LOC were quite different. The Northern Locality founded their offer on the price paid in Southern Devon and Torbay at £15.00 per refinement (not per eye) and £10 for a nurse led service in the WEEU. It was also based on advice from the previous NHS Devon ophthalmic advisor, who suggested that deviating from the level paid in South Devon could potentially weaken the position of that contract and would also make any future negotiations for glaucoma work much more difficult to negotiate if too much money was offered for this relatively simple procedure. The LOC's position was that nationally the scheme was being paid at a much higher rate, between £20-25 and in some places as much as £45.

Notwithstanding the variance, the business case was developed, demonstrating savings based on an indicative fee of £20 (subject to negotiation) which is the minimum fee acceptable by the LOC (although they have intimated that there is a risk to this increasing in future due to ophthalmologists having to purchase equipment that they currently stock).

Recommendations

Note that an OHT referral refinement process in North Devon would reduce the number of unnecessary referrals to the hospital eye service (First outpatient appointment £117)

Note that the benefits of an OHT referral refinement process would include:

- improved quality of care for patients by reducing unnecessary trips to hospital and providing care closer to home;
- deliver recurrent savings in the 2013/14 financial year; and,
- bring care into line with latest NICE Guidance.

Agree that an OHT referral refinement scheme can be implemented in North Devon and **confirm** the price that the Board is willing to pay for the service.

AGREE/DISAGREE

Version history

Version	Date issued	Brief summary of change	Owner's name
v.1	1 October 2012	First draft	Jon Saunders
v.2	9 November 2012	Included feedback from LOC, Anneke Dissevelt and Karl Whittaker	Jon Saunders

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REDESIGN BUSINESS CASE FOR OHT REFERRAL REFINEMENT SCHEME

Executive summary

There are opportunities in North Devon to improve the way eye conditions are identified, referred and managed. In the short-term, there is an opportunity to introduce a referral refinement process for patients with ocular hypertension (OHT) by repeat testing by community optometrists for heightened intraocular pressure (IOP) using a Goldmann style[1] tonometer prior to referral to the hospital eye service.

In the longer-term, technological change means that there is now the capability to carry out procedures or tests in a community setting that could previously only be carried out in an acute hospital setting. This could lead to significant improvements in providing care closer to home, as well as freeing up medical capacity to help handle more complex cases.

This business cases proposes the introduction of a referral refinement scheme for patients with OHT. This scheme would:

- reduce the number of unnecessary referrals to the hospital eye service
- provide added convenience for patients by providing them with greater access to appropriate eyecare closer to home
- free up capacity in the hospital eye service for more complex cases
- provide a more cost effective service with a greater number of patients being managed in a community setting
- bring the referrals process into line with latest NICE guidelines.

We propose that the referral refinement scheme for patients with OHT should be implemented in March 2013. The estimated savings from this scheme are shown below:

	2012/13 financial year (implemented in February 2013)	**2013/14 financial year**
Proposal	**Estimated net savings**	**Estimated net savings**
OHT referral refinement	£2,053	£12,320

[1] Guidance issued in 2010 suggests that Perkins tonometry is also suitable for use in an OHT referral refinement scheme – 'When referring a patient on IOP grounds alone, Goldmann applanation tonometry (or Perkins tonometry) is regarded as offering greater accuracy' - Guidance on the referral of glaucoma suspects by community optometrists, The College of Optometrists and The Royal College of Ophthalmologists, December 2010

OHT Referral Refinement Scheme

1. Objective

1.1 The objective is to reduce the number of unnecessary referrals to secondary care based on raised IOP alone.

2. Strategic context

2.1 There is currently a strong emphasis within the NHS to improve the quality and delivery of patient care through innovative approaches to the management and treatment of patients; improving productivity within the provider setting and preventing unnecessary appointments where appropriate.

2.2 The proposals outlined in this business case meet *all* the key elements of both local and national QIPP objectives, with particular emphasis on the improved quality of the patient pathway through reduced hospital visits, care closer to home, and the improved productivity of the hospital eye service through reduced outpatient appointment slots and released consultant clinical time.

2.3 In April 2009, NICE published their clinical guidance on '*Glaucoma; Diagnosis and management of chronic open angle glaucoma and ocular hypertension*' (CG85). In March 2012 NICE published a Commissioning Guide for '*Services for people at risk of developing glaucoma' (*CG44*)*. Both the clinical guidance and commissioning guide recommend that patients with raised IOP but no other signs of glaucoma have their measures repeated using a Goldmann style contact tonometry test before referral to hospital eye service.

2.4 From a local strategic context, the introduction of an OHT referral refinement process has been discussed with the North Devon Ophthalmology Clinician-to-Clinician (C2C) meetings, and has been identified by both the Northern Devon Healthcare Trust and the NHS Devon North Locality as fitting the strategic needs for the development of ophthalmology services in North Devon.

3. Local context

3.1 There are a number of local issues that are relevant:

- QIPP development and delivery
- rurality leads to many patients travelling considerable distance to a hospital appointment
- capacity pressure within the NDDH outpatient department.

4. New service model

Background

4.1 OHT is defined by the most recent NICE Guidance[2] as repeatable IOP over 21 mmHg as measured by Goldmann tonometry. As part of a standard eye test optometrists

[2] NICE Guidance 85 – Glaucoma: Diagnosis and management of chronic open angle glaucoma and ocular hypertension – April 2009 http://publications.nice.org.uk/glaucoma-cg85

generally measure IOP using non-contact tonometry. Evidence shows that the non-contact tonometry test is not as accurate as an applanation tonometry test.

4.2 The use of Goldmann style tonometry is not mandatory and is not part of the General Ophthalmic Services contract. Anecdotal feedback suggests that while some optometrists conduct Goldmann style tonometry if non-contact tonometry shows an IOP level of more than 21mmHg, many would not and would instead refer the patient to the hospital eye service. Once these patients attend a hospital appointment they will have an applanation tonometry test to confirm the IOP.

4.3 Applanation tonometry tests are significantly more accurate than non-contact tonometry tests and a number of patients referred from optometrists turn out to be false positives (i.e. the applanation tonometry test shows that the level of IOP is equal to or under 21mmHg). In this situation it is likely that the patient would be discharged (assuming there is no other cause for concern). The outpatient appointment could therefore have been avoided if an applanation tonometry test had been carried out by the optometrist before the patient was referred to hospital.

4.4 The most recent NICE Commissioning Guide for glaucoma (Commissioning guide 44[3]) states:

'*Commissioners should agree a fee for repeat measures which covers the time taken to conduct them, and consider the costs associated with the purchase, maintenance or replacement of equipment when this is required'.*

5. Proposal

5.1 The proposal is that North Devon optometrists be invited to participate in an enhanced service to improve the quality of OHT referrals to the hospital eye service. The scope of the enhanced service would be to conduct Goldmann style applanation tonometry testing on patients who present with an IOP of more than 21 mmHg based on non-contact tonometry before they are referred to the hospital eye service.

5.2 The new service would apply to patients with raised IOP only (i.e. it would not apply to patients with other indications of potential glaucoma in addition to raised IOP). The proposed service would work as follows:

- Patients with an IOP of less than or equal to 21 mmHg on a non-contact tonometry test would not be referred to the hospital or for an applanation tonometry test
- Patients with an IOP of more than 21 mmHg but less than 31 mmHg on a non-contact tonometry test would be referred for a Goldmann style applanation tonometry test to be carried out under the enhanced service
- Patients with an IOP of more than 31 mmHg on a non-contact tonometry test would be referred to the hospital directly

5.3 Optometrists would be paid a set fee (for example, £20) for every applanation tonometry test they carry out. The Local Optical Committee (LOC) understands that

[3] Services for people at risk of developing glaucoma', page 10, March 2012, NICE Commissioning Guide 44 www.nice.org.uk/guidance/cmg44

the majority of North Devon optometrists would be interested in participating in this enhanced service. Appendix 1 shows the proposed process in more detail.

6. Benefits

6.1 We consider that the proposed service would have significant benefits for patients, commissioners, GPs and for the hospital eye service as follows:

Benefits of the proposed enhanced service for OHT referral refinement	
For patients	Rapid access to appropriate eye care in local service if majority of optometrists participate
	Less travel time, time off work and related costs
For commissioners	Care closer to home in a convenient community setting
	Reduction in outpatient referrals to acute hospital services (potentially more than 50% reduction in referrals for raised IOP)
	Recurrent savings
	Would bring care into line with latest NICE guidelines (although current care is not in breach of guidelines)
For GPs	Fast access, local primary care based service
	Quick, local and accurate referral refinement service
For the Hospital Eye Service	Fewer inappropriate referrals
	Improved links between primary and secondary care through involvement of secondary care clinicians in launch event and potential for ongoing education events
	Would bring care into line with latest NICE guidelines (although current care is not in breach of guidelines)

7. The evidence base

7.1 The most recent NICE Commissioning Guide for glaucoma[4] notes that

'it is estimated that around 50% of all referrals for raised IOP are false positives. This appears to be a result of increased referrals based on a single measure of IOP of over 21 mmHg made using no-contact tonometry. The topic advisory group agreed that the increase in false positive referrals was undesirable and could be prevented by commissioning repeat measures and/or referral refinement services. The consensus opinion of the topic advisory group was that referrals should be made to a service only when repeat measures have taken place….The consensus opinion of the topic advisory group was that commissioning a repeat measures scheme for people with raised IOP will reduce the number of false positives to

[4] 'Services for people at risk of developing glaucoma', page 10, March 2012, NICE Commissioning Guide 44 www.nice.org.uk/guidance/cmg44

around 33%. Within an optimal service configuration incorporating referral refinement this figure could reduce further to 20% or less.'

7.2 The Guide goes on to recommend that:

*'People with an initial IOP reading of more than 21 mmHg but no other signs of glaucoma should have their measures repeated using a Goldmann style tonometry test **before** referral to hospital eye service in accordance with the NICE quality standard for glaucoma.'*

'Where it is not possible to use Goldmann style applanation tonometry, people should have four readings per eye using another tonometer and be referred according to the mean reading, in accordance with The College of Optometrists' and The Royal College of Ophthalmologists' joint guidance on the referral of glaucoma suspects by community optometrists'

7.3 The LOC estimates that a refinement process that involves a repeat testing of a patient with an IOP of higher than 21 mmHg using Goldmann style applanation tonometry would reduce, by up to 75%, the number of referrals to the hospital eye service based on high IOP alone.

7.4 In the South Devon and Torbay IOP Refinement Scheme which began in June 2011, 68% of the 139 referrals that have been refined in the scheme have not proceeded on to secondary care.

7.5 For costing purposes and taking into account the advice from the NICE Commissioning Guide we have assumed that the proposed scheme would result in a reduction of 50% of the referrals for raised IOP only.

8. Finance, activity and assumptions

Assumptions and costs

8.1 The figures in the table below are based on an estimate that 220 patients per year present to secondary care with raised IOP only. The calculations for this estimate are based on the following figures:

- of the 2,802 referrals to DART from North Devon practices in 2011/12, 605 (21.6%) were for suspected glaucoma
- assuming the same proportion (21.6%) applied across all 5,088 ophthalmology referrals from North Devon practices to NDHT in the 2011/12 financial year this gives a total of 1,099 referrals for suspected glaucoma
- a DART Audit of South Devon and Torbay referrals for suspected glaucoma prior to the start of their IOP refinement scheme showed that 20% of referrals for suspected glaucoma were for raised IOP only
- applying this 20% ratio to the 1,099 referrals for North Devon gives an estimate of 220 cases per year of suspected glaucoma based on raised IOP only
- there are certain assumptions that sit behind this calculation (e.g. that the proportion of raised IOP only as a subset of all suspected glaucoma cases is the same in North Devon as in South Devon and Torbay) but in the absence of any other data these assumptions seem reasonable.

8.2 Based on LOC estimates and advice from the NICE Commissioning Guide we have made some further assumptions that:

- 60% of patients who present with an IOP of more than 21 mmHg based on a non-contact tonometry test have a subsequent IOP of less than or equal to 21 mmHg after Goldmann style applanation tonometry and do not need to be referred to the hospital eye service

- the remaining 40% of patients with an IOP of more than 21 mmHg after Goldmann style applanation tonometry have a repeat applanation tonometry test with an optometrist within one month

- overall, approximately 50% of patients who present with an IOP of more than 21 mmHg based on a non-contact tonometry test have a subsequent IOP of less than or equal to 21 mmHg after either an initial or repeat Goldmann style applanation tonometry and do not need to be referred to the hospital eye service

- 75% of patients referred to the hospital eye service require a follow up appointment.

OHT refinement service	*Cost*
Current Service (annual figures)	
220 secondary care referrals (£117)	£25,740
165 secondary care follow ups (£68) (fields and/or repeat pressures)	£11,220
Total	**£36,960**
Proposed Service (annual figures)	
220 applanation tonometry assessments carried out by optometrist (£20*)	£4,400
88 repeat applanation tonometry assessments by optometrist (£20*)	£1,760
110 secondary care referrals (£117)	£12,870
83 secondary care follow ups (£68)	£5,610
Total	**£24,640**
Estimated annual savings (per 220 patients)	**£12,320**

*Indicative cost only – final amount subject to contract negotiation

9. Evaluation

9.1 We expect that the evaluation of the new model will be managed from a qualitative perspective by discussions about the quality of referrals that are being seen in secondary care at the established North Devon Ophthalmology Clinician-to-Clinician meeting. The proposed service would be evaluated from a quantitative perspective through the established NDHT/NHS Devon contract meeting. The Local Optical Committee Support Unit (LOCSU) has developed an electronic management system through Webstar which could be used to manage the implementation of this enhanced service (i.e. to automatically performance manage, flag outliers & non-participating practices, produce audit data, and process payments) although the use of this system would require some additional funding.

9.2 The audit of referrals would continue to be delivered by the current means (i.e. through secondary care).

10. Risks and issues

Issues to consider

10.1 There is an existing issue that referrals based on IOP pressure alone do not cater for the fact that different people have different corneal thicknesses which can distort pressure readings. Tonometry tests over-estimate IOP for people with thick corneas while under-estimating IOP for people with thin corneas. Therefore someone with a thin cornea may in fact have a higher IOP than the reading as measured by the tonometry test. The referral threshold of 21 mmHg does not account for this (i.e. someone with a thin cornea and an IOP reading of 19 or 20 may in fact have an actual IOP reading of more than 21).

10.2 However, NICE Clinical Guideline 85 does not advocate treatment of those with thin corneas (< 555 microns) and an IOP of less than 21mmHg so this proposal would not make the current situation any worse (i.e. it would not increase the number of those being under-referred at present because they have thin corneas).

Resources and implementation

10.3 There are a number of resource issues that need to be considered:

- **Funding for enhanced service** - additional funding will be required for the enhanced service to be offered by optometrists. However, as indicated in the costing table above we would expect that this funding would be more than offset by the savings from reducing the number of unnecessary referrals into secondary care.

- **Skills** - the LOC considers that the skills to deliver this enhanced service fall within the core skills required by optometrists so there would be no significant training required. Online training in the use of applanation tonometers is already available and refresher/top-up training could be provided by the LOC as required.

- **Contracting** - each practice that wished to participate in the scheme would sign a contract with the North Devon locality to deliver the enhanced service. The contract would state that the practice would be paid a set fee (for example, £20) for every Goldmann style applanation tonometry test conducted on a patient who had an initial IOP of more than 21 mmHg based on a non-contact or rebound tonometry test. Practices would be paid on a monthly basis once they had provided basic details of the number of tests carried out in the preceding month. To ensure takeup of the scheme the contract and associated administrative requirements would be simple and kept to a minimum.

- **Link with the Devon Access and Referral Team (DART)** - DART would be involved in the implementation of this enhanced service and would ensure that, wherever possible, referrals for OHT (where there were no additional factors) were on the basis of a Goldmann style tonometry test. Referrals based on a non-contact tonometry test would not be rejected (the enhanced service will be optional rather than compulsory) but feedback could be provided to the referring optometrist about the availability of the enhanced service.

- **Implementation date** - we propose that this enhanced service be implemented in March 2013 with a launch event to be held in February 2013.

11. Timescales

11.1 The table below shows the proposed timetable for implementing this proposal.

Detail	Timeline
Agreement from clinicians (primary care, secondary care, optometrists) to proposal	By end November
Formal approval from Locality Board for proposed service	By end November
Develop detailed service specifications	December/January
Draft contract between North Devon locality and optometrists	December/January
Event to launch new service	February 2013
New scheme begins	March 2013

12. Recommendations

12.1 **Note** that an OHT referral refinement process in North Devon would reduce the number of unnecessary referrals to the hospital eye service

12.2 **Note** that the benefits of an OHT referral refinement process would include:
- improved quality of care for patients by reducing unnecessary trips to hospital and providing care closer to home
- delivering estimated savings of £12,320 in the 2013/14 financial year
- bringing care into line with latest NICE Guidance

12.3 **Agree** that an OHT referral refinement process as outlined in this paper be implemented in North Devon from March 2013.

AGREE/DISAGREE

Appendix 1 – Overview of proposed OHT refinement process (for patients with raised IOP and no additional concerns)