Repeating pressures – an electronic reporting system

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REFERRALS OF patients with raised pressure have rocketed since the introduction of the NICE management guidelines for glaucoma in the spring of 2009. The LOCSU Level 1a enhanced service pathway is designed to minimise the additional referrals and LOCSU has also developed an electronic reporting system for the pathway. Initial results are very encouraging, with 77% of patients being deflected from referral.

In April 2009, NICE published its guidance for the diagnosis and management of chronic open angle glaucoma (COAG) and ocular hypertension (OHT). Although the referral of suspect glaucoma and OHT was not covered by the guideline, by defining an intra-ocular pressure (IOP) above which diagnosis should occur, it effectively set a threshold and the repercussions have been felt ever since. The guideline applies in England and Wales, and has had a knock on effect in Northern Ireland and Scotland.

Historically, many optometrists had retained patients with pressures in the low 20s if there were no other signs of glaucoma. NICE now indicated that those patients with a repeatable pressure by contact tonometry of above 21mmHg should be investigated using a battery of tests that it listed in the guidance, and diagnosed by someone suitably qualified. This effectively meant that these patients would now need to be referred to secondary care and this was the advice given to the profession by the optical bodies on medico-legal grounds.

Unfortunately, there was no provision for funding optometrists to repeat pressures with or without contact tonometry, so the result was that patients with high pressures on a single reading were referred to the HES for repeat measures and diagnosis if required. Referrals to ophthalmology units soared; not only of patients with genuine pressures over 21mmHg, but also of those with unverified raised pressures.

The College of Optometrists and the Royal College of Ophthalmologists set up a joint glaucoma working group to consider the problem of the increased referrals. The result was guidance published in December 2009 which defined two older age groups of patients with modestly raised pressures who may not require referral. This was based on the premise that the NICE guidance does not advocate treatment for patients diagnosed in those groups. Figures from Stockport suggest these patients may constitute about one-third of all the NICE-based referrals. It is worth noting that the LOCSU clinical advisory group is of the view that, as any decision not to treat patients in these two groups would be made on the basis of contact tonometry readings, so any decision not to refer is also best made on the basis of repeat measures by contact tonometry.

LOCSU had created a glaucoma referral refinement enhanced service pathway in the late summer of 2008, but this was put on hold when the prospect of the NICE guidance reared its head. As soon as the guidance was published, the pathway was revised and adapted to suit, with the result that it offers three pathways:

- Level 1a is purely the refinement of IOP readings prior to referral.
- Level 1b is 1a plus repeating visual fields where an anomaly has been found.
- Level 2 is monitoring diagnosed OHT.
- Level 3 is diagnosis of OHT and suspect COAG.

Where a PCT commissions a service, level 1a and b should be open to all practices and one would hope that all would join in. These are core skills, used every day, so there is no reason why accreditation should be required, although refresher courses on contact tonometry may be offered. Although NICE specifies Goldmann tonometry for diagnosis and monitoring, it is worth repeating that NICE does not cover referrals. What are ideally required at referral are repeatable pressures with an accurate instrument of reasonable specificity. For this reason, LOCSU consider that Perkins is just as acceptable as Goldmann for the purpose of repeating pressures. Lots of practices have Perkins tonometers but not Goldmann and to exclude them would reduce the effectiveness of a refinement scheme.

Level 1 is intended as a refinement service provided by the practice where the original IOP readings or visual fields were performed. Referring elsewhere purely for repeat measures leaves all sorts of problems for both practitioners.
and patient. Who is responsible for the referral, does the second practitioner take visual field and optic nerve results on trust? Medico-legal advice is not to do this unless the second practitioner is doing a full assessment including fields and discs.

Level 2 is likely to be available to those practices that wish to participate. Although primarily core skills, this is a monitoring exercise previously undertaken in secondary care in most cases. It is, therefore, reasonable that the commissioners should look for a demonstration of knowledge and skills from those providing the service. LOCSU has developed a training package consisting of four CD-Rom based lectures and videos which provide a Cardiff University certificate of knowledge from the Welsh Optometry Post-Graduate Education Centre (WOPEC) as well as eight CET points. The second part of the process is a demonstration of skills, covering Goldmann tonometry and calibration, Van Herick, and use of a Volk lens. This requires assessors who have previously been accredited by Cardiff University and there are now quite a number across the country.

Level 3 requires optometrists with the appropriate qualification – currently the College glaucoma-A certificate, and so the available numbers are small at present.

Most of the interest lies with level 1a at the moment, due to the pressure of increased referrals. Many areas are considering implementing schemes to fund repeat pressure measurements, or have already done so. One of the problems with all enhanced services is auditing the results. This needs to be planned right from the start, and manual systems are quite labour intensive. In December 2010, LOCSU commissioned the development of a simple Web-based system for reporting and auditing results and this has been running as a pilot in the Stockport PCT area since February and now in the neighbouring Tameside & Glossop PCT area as well. The key here is that inputting the data is not an additional chore, but is all that needs to be done.

The system then generates reports, referrals and payments and the collection of data for audit happens as a by-product. The development phase is now complete and is available to any other areas that may wish to use it.

The Web reporting system is provided by Webstar Health, a company with long experience of similar enhanced services in pharmacy. It already has contracts as a data processor with many PCTs. Security is provided by a three-part login process, similar to that employed by many Internet banking systems. The process has been carefully thought out in order to minimise the data entry at any given point. For instance, it is not necessary to enter the patient’s address unless they are being referred. If they turn out not to have repeatable high pressures, then name and date of birth is sufficient for the PCT to identify the patient.

The system is not really an electronic record, more of an electronic report. Hence it is entirely reasonable to delegate the completion of the reports to reception staff. As a safeguard, before finally completing the process, the system requires the practitioner to check a summary of the entries and then enter their personal digital sign off number (DSN) – like a PIN. The system does have some decision support built in – such as flagging when patients meet the College’s age group criteria or large differences in pressure between the two eyes.

As Stockport and Tameside & Glossop

Continued on page 24
PCTs both operate referral processing centres, the system has been configured to make the referrals available electronically to the centres. There are no referral forms for the practitioner to post and the referral centre sends a copy to the GP. In cases where there is no referral centre it is a simple case of printing the forms and posting to the GP.

Generation of payment lists is performed by Webstar Health, which provides the payment details for each practice to the PCT for approval prior to passing to the payment agency. In the case of Stockport and Tameside & Glossop, patients can attend anywhere within the two PCTs and the system will allocate the cost to the correct PCT for payment purposes.

The system is easy for practices to use and the huge benefit to the PCTs is that no manual data processing is required, either for payment or audit. Signing up to the very simple service level agreement (SLA) is via a pop up form on first use, in the manner of signing up to a software end-user licence agreement.

The SLA references a protocol which can be downloaded from the system. In the event of changes to the protocol the SLA can be made to re-appear so that the contractor can confirm agreement once more. A patient leaflet explaining the reasons for repeating pressure measurements is also provided for download from the main menu.

Initial results are very encouraging. In the first six months of operation in Stockport, 311 patients were rechecked under the Level 1a scheme and 240, or 77%, were deflected from the referral that would otherwise have occurred as a result of NICE. To put this into perspective, figures suggest that there were around 34,000 GOS sight tests and 13,900 private sight tests carried out in the area in a similar period in 2009 – a total of almost 48,000. In total 59% were deflected by just one repeat, with a further 18% deflected by the second repeat. Only 40% required a second repeat measure. Of those first repeats, 60% were carried out using Goldmann tonometers and 40% using Perkins.

The age profile of the patients shows that 34% of the patients fall into the age 65 and over group of the colleges advice on patients who may not need referring.

The savings are considerable, with Stockport projecting savings of around £80,000 and increasing as more practices use the system. Currently 77% of the practices in the area are using the system, including all but one of the larger practices. The latter has been waiting for the installation of an Internet link. It is likely that the 77% of practices cover some 85-90% of the patients. The annual cost of the IT system will be 10% of the savings.

Overall the pathway can be considered a great success and the Webstar Health system is a great time-saver for the PCT as well as enabling the provision of good quality audit data. Huge thanks are due to Gillian Miller, commissioning manager at Stockport PCT, for her support throughout the development period.

For further information on the pathway and the web-reporting system, LOCs should contact LOCSU.

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