

The Impact of SIGN 144 Guideline and Education on Glaucoma Referrals in Tayside: A Closed-Loop Audit

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Introduction

Approximately 20% of ophthalmology referrals in Scotland are related to glaucoma, the majority of which are provided by community optometrists. The Scottish Intercollegiate Guideline Network (SIGN) 144 guideline¹ for appropriate referrals and safe discharge was launched in March 2015 to streamline the interface between primary and secondary care where glaucoma is concerned.

An audit completed in 2016 comparing the 'pre-guideline introduction' (PRE) and 'post-guideline introduction' (POST) periods revealed notable improvement in documentation of risk factors, pachymetry and fundal image. Nevertheless, some areas were consistently under-documented such as repeat tonometry, iridocorneal angle assessment and optic disc size. The results of the audit were discussed with the Local Area Optometric Committee and the importance of provision of efficient eye care delivery was reinforced.

Here we evaluate the downstream impact of the SIGN 144 guideline on referrals now that a further intervention has been implemented and the guideline has been in place for at least 18 months.

Aim

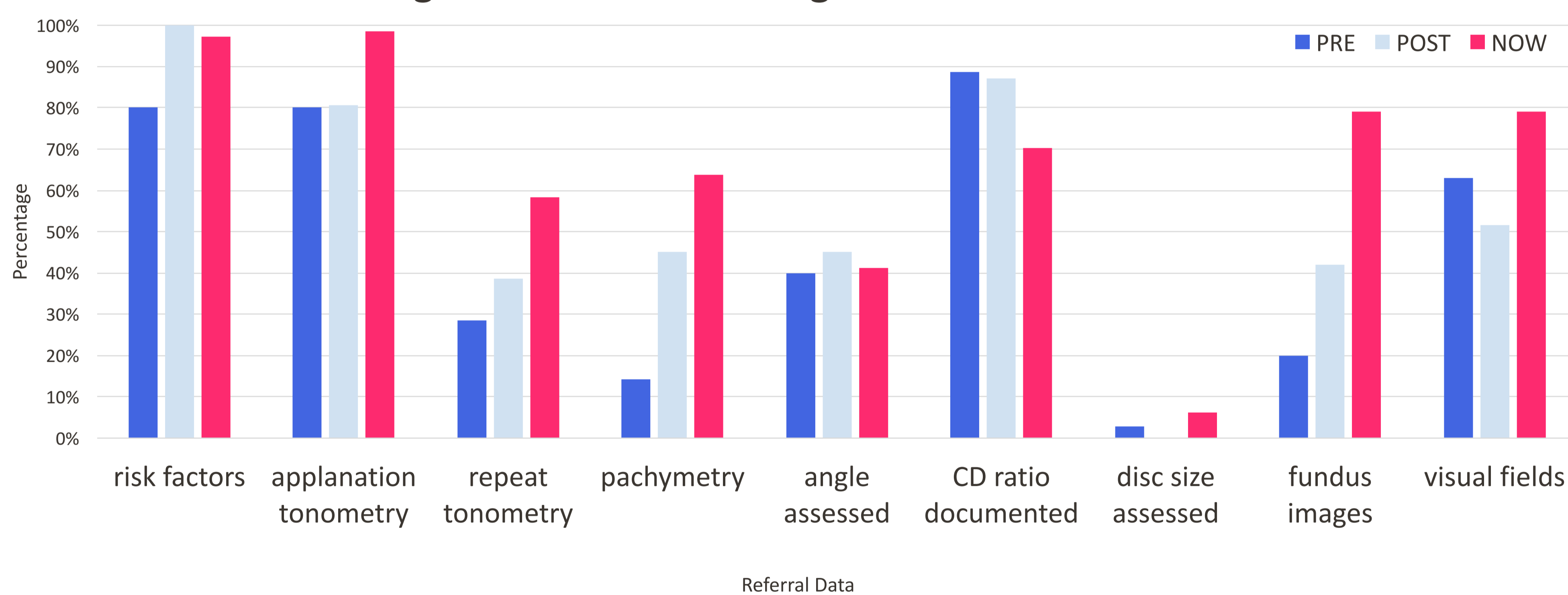
The aim of this audit cycle was to assess the impact of education in addition to the implementation of the SIGN 144 guideline on glaucoma referrals.

Methods

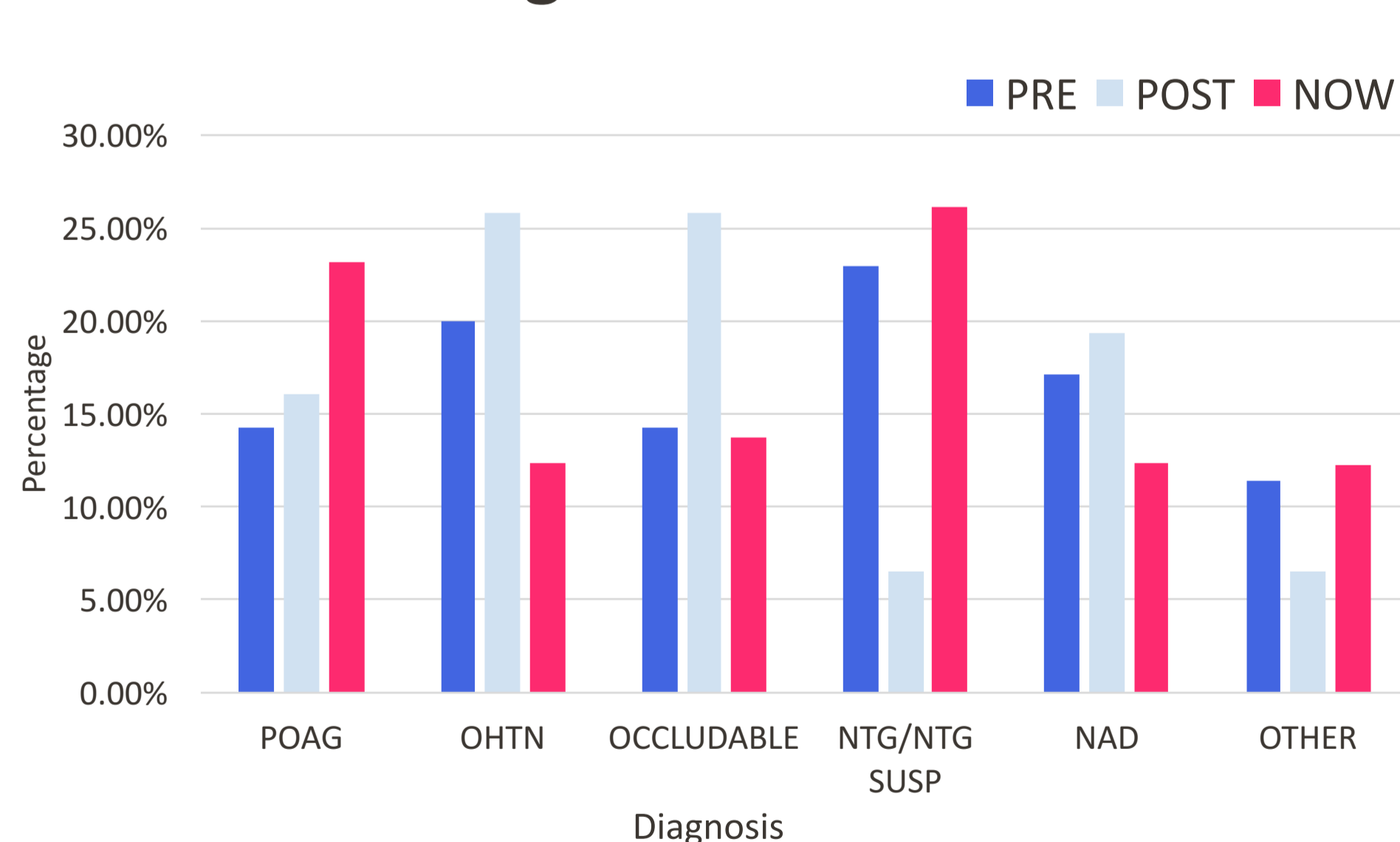
The results of the initial audit cycle were discussed with the Local Area Optometric Committee. Electronic and written referral data from 1772 optometry referrals for the period of May to July 2017 were collected and the 144 referrals pertinent to glaucoma were isolated. These referrals were audited against the key criteria as specified in the SIGN guideline and comparisons were drawn with the previous findings.

Results

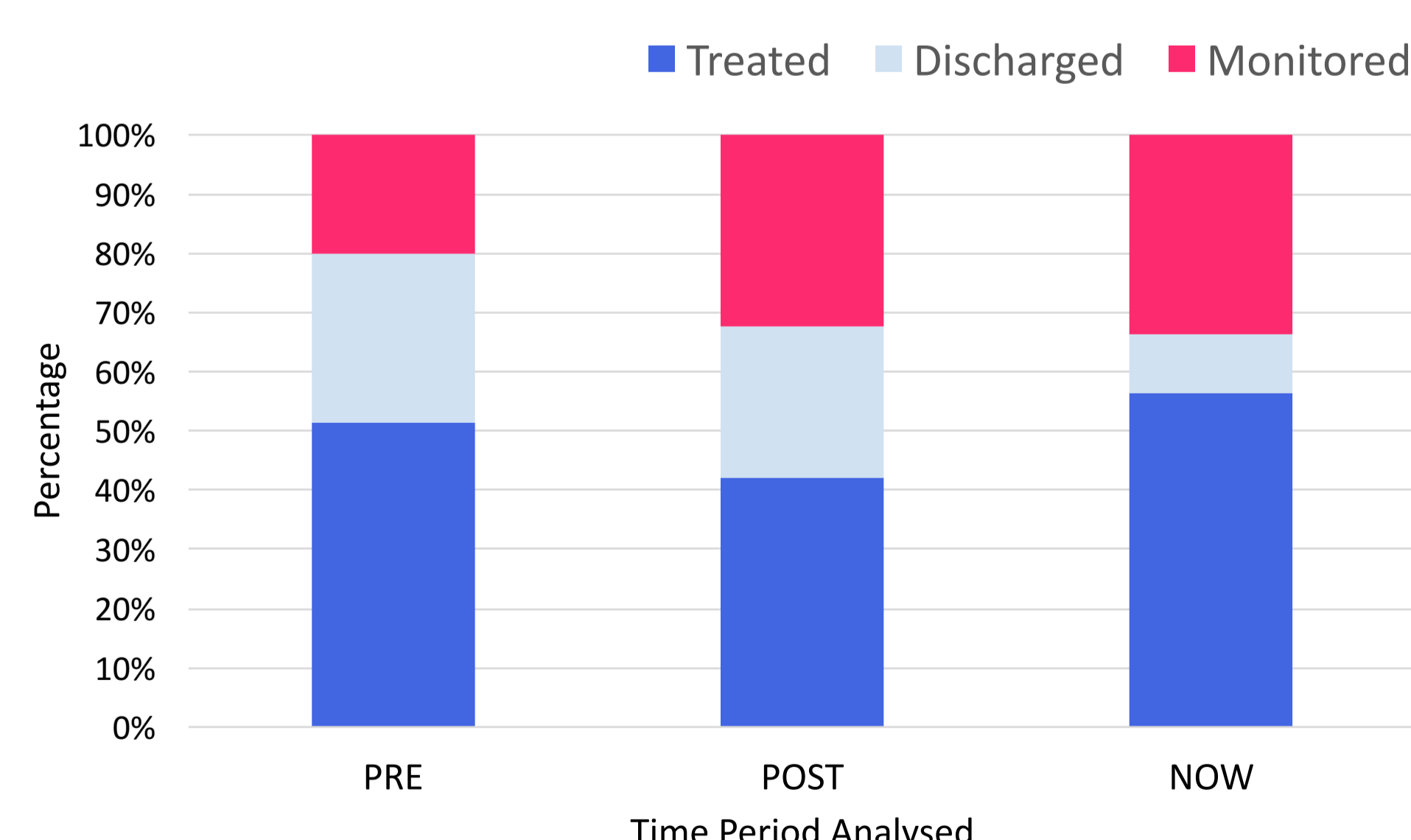
Percentage of Referrals Fulfilling The Recommended Criteria



Diagnosis in Clinic



Outcome of Care



The vast majority of referrals in NHS Tayside were consistently of a high standard. The audit data shows that the quality of referrals has improved across most domains, and in particular the documentation of tonometry, repeat tonometry, pachymetry, assessment of disc size and the number of referrals sent with attached fundus images and visual fields. As such, the quality of referrals is improving.

It would appear that the number of glaucoma referrals to secondary care has increased, from 66 in total before (PRE plus POST) to 144 during this cycle. As a result, the average time to clinic has risen from around 50 days to 60 days.

We are diagnosing more Primary Open-Angle Glaucoma (POAG) now than during the previous time periods, as well as discharging fewer patients from secondary care, therefore we believe the quality and appropriateness of referrals continues to improve.

Conclusions

The introduction of the guideline and small group teaching has impacted positively on the quality of glaucoma referrals. Additional support and training has contributed to an improvement in the quality of appropriate referrals and has also strengthened the link between local optometrists and secondary care services.

Our findings show that the SIGN 144 guideline has had a positive effect on glaucoma referrals within NHS Tayside and that there has been a continuous improvement in referral quality, as demonstrated by this cycle. However, the number of referrals appears to have increased, lengthening the average time to clinic by around 10 days.

Furthermore, the number of individuals with Ocular Hypertension (OHTN) appears to have decreased, which could imply that these patients are being successfully monitored in the community. Interestingly, the number of Normal-Tension Glaucoma (NTG) patients has risen in line with epidemiological studies of this condition².

References

1. Scottish Intercollegiate Guidelines Network (SIGN). Glaucoma referral and safe discharge. Edinburgh: SIGN; March 2015. (SIGN publication no. 144). Available from: <http://www.sign.ac.uk>
2. Chan MP et al. Glaucoma and intraocular pressure in EPIC-Norfolk Eye Study: cross sectional study *BMJ* 2017; 358 :j3889

No financial interests to declare.