



Figure 1 VSLD score comparing pre- and post-cataract surgery visual function for 10 patients with LD. VSLD, Visual Symptoms in Learning Disability.

Conflict of interest

The authors declare no conflict of interest.

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Sir,

A novel record for patients with neovascular age-related macular degeneration: providing information and a personal treatment record

Education is key for health service users to facilitate understanding of complex health issues, such as risk factors and potential benefits of lifestyle and medical interventions. It is especially important in chronic conditions such as age-related macular degeneration (AMD).¹

Information leaflets are commonly used for patient education,² and personalised health records, where patient information is combined with a health record, have been successfully established in other specialties.³ This concept has yet to be translated into ophthalmic practice.

We have developed a novel personalised hand-held AMD record (PHAR) as a small booklet, combining 'easy to understand' information about AMD with a personalised health record, to increase patient education and engagement in the AMD service.

A PHAR (available online: <http://www.ouh.nhs.uk/patient-guide/leaflets/files/13840Pmacular.pdf>) was designed with information on various aspects about AMD, local support services and an intravitreal injection (IVI), and outpatient appointment record.

A self-reported questionnaire containing six questions rated from 0 to 10 (0 = no knowledge) was designed to evaluate our patients' knowledge in a number of domains related to AMD. The follow-up questionnaire also asked if patients had (1) read the information record; (2) found the IVI and outpatient appointment records useful; and (3) if they would recommend this resource to other AMD patients.

Over 7 weeks, 98 patients with neovascular AMD (nAMD) were approached to complete the baseline questionnaire prior to receiving a PHAR.

All 98 patients completed the baseline questionnaire. Of these, 93 patients (94.9%) completed the follow-up questionnaire after a mean of 40 days (SD: 15). All 93 patients indicated they had read the PHAR. There was a

Table 1 Mean baseline and follow-up questionnaire scores with percentage improvement and statistical significance using a paired Student *t*-test (*n* = 98)

Questionnaire domain	Mean baseline score	Mean follow-up score	Percentage improvement	Significance
Knowledge of AMD	5.69	6.94	22	<i>P</i> < 0.0001
Treatment of neovascular AMD	5.99	7.51	25.3	<i>P</i> < 0.0001
Risk factors and beneficial lifestyle changes	4.85	6.78	39.7	<i>P</i> < 0.0001
Use of an Amsler grid	3.01	6.85	127.5	<i>P</i> < 0.0001
External support services available	2.91	4.7	61.6	<i>P</i> = 0.0002
What to expect from the AMD service	7.6	8.43	10.92	<i>P</i> = 0.0002

significant increase in patient's knowledge in all six questionnaire domains (Table 1). The outpatient appointment and IVI record was useful in 85 (91.4%) and 78 patients (83.9%), respectively. All patients recommended this resource to other AMD patients.

The introduction of an easy-to-understand novel PHAR significantly improved patients' knowledge regarding a number of domains related to AMD and its treatment.

The Amsler grid remains an important tool for monitoring central vision despite patient non-adherence.⁴ The PHAR contains an Amsler grid with easy-to-follow instructions and, coupled with a significant improvement in understanding of its importance (127.5%), is expected to contribute to earlier detection of nAMD for the second eye.

Patients with chronic diseases benefit significantly from social support networks with improved overall functioning.⁵ Knowledge of available external support services improved by over 60% in this study. Thus, we expect this PHAR to contribute to this.

Patient knowledge of risk factors and protective factors in AMD is known to be poor. The PHAR improved patient knowledge by 40% in this area, allowing patients to make beneficial lifestyle changes to reduce the risk of progression of their AMD.

The implementation of a novel PHAR into the AMD service significantly improved knowledge regarding AMD. Better patient education improves clinical outcomes and patient engagement. Thus, the introduction of this PHAR will enable us to deliver these goals for patients with AMD.

Conflict of interest

Professor Downes has received, on behalf of the department, honoraria for speaking at meetings, and support for equipment and research from Novartis, Eli Lilly. Dr Shah has received a bursary from Bayer to support research. The authors declare no conflict of interest.

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Sir,

Comment on: 'Corneal confocal scanning laser microscopy in patients with dry eye disease treated with topical cyclosporine'

Corneal sub-basal nerve plexus morphology, epithelial, and stromal cellular changes in dry eye disease (DED) determined by in vivo confocal microscopy (IVCM) has been well documented. Despite a strong association between these changes to the severity of DED and its clinical relevance, its specific causal role towards DED pathogenesis is yet to be determined. In a recent report, Iaccheri B *et al.*¹ have described favorable changes in cell density of the intermediate epithelium, sub-basal nerve features and keratocytes state by IVCM in DED patients over time who were on topical 0.05% cyclosporine ophthalmic emulsion treatment. These observations were in addition to decrease in DED signs and symptoms.¹ The findings are clinically relevant and interesting indeed, especially with the IVCM assessments during follow-ups. However, it is important to point out a few observations regarding the IVCM analysis based on the representative images shown in Figure 2 in the report by Iaccheri B *et al.*