

this definition, we consider silicone oil to be a 'mineral oil' and never intended to suggest that silicone oil is derived from petroleum. We apologise if this was not clear to the readers. Mineral oil is a nonspecific term used for a variety of oils and our comments in relation to breast augmentation were specific for silicone oil.

We thank the authors for their interesting and informed comments about this case and acknowledge their considerable knowledge of the long-term complications of silicone oil internal tamponade. We hope our comments help clarify the key message of our recent case report.

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Sir,
Reply to Ghazawy et al

We are flattered to have attracted the kind of high-quality, considered response above. Ghazawy, Saldana and McKibbin have provided original data and in many ways their article surpasses our own in its contribution to the debate for this reason. Their study examined an innovative and potentially sustainable model for fast tracking suspected choroidal neovascular membrane (CNV) referrals and found that 42% of cases with

distortion on Amsler grid testing had neovascular macular degeneration. Faced with a confirmed pathology in less than half of those referred, some disappointment is implicit in their use of the word 'very' in their subsequent statement; '(there were) a *very* high number of false positives'. It is possible to draw precisely the opposite conclusion; namely that for so simple and inexpensive a test, the proportion with genuine pathology in this group is remarkably high.

This proportion represents the positive predictive value (PPV) of the Amsler test. Unlike the sensitivity and specificity of the test, which are entirely independent of the amount of pathology in the community, the PPV is profoundly affected by the prevalence of the pathology being sought. A PPV of 42% (38% for CNV) compares favourably with the PPV of screening programmes already widely accepted, for example, 9% in breast screening for women aged between 50 and 59 years,¹ 1% in cervical screening of postmenopausal women on hormone replacement,² and, closer to home, 0% for the finding of isolated field defect and subsequent confirmation of glaucoma.³

The authors comment that when the optometrist examined the fundus the sensitivity fell to 71% (it would have been interesting to know by how much it fell, but they do not give the figure derived without examination). They were able to achieve a sensitivity and specificity 90% or more with their 'fast track and refinement' clinic. This would undoubtedly greatly elevate the PPV of those being sent on to the medical retina specialist, as the prevalence of pathology in this population (those referred to secondary care with abnormal Amsler test results) is so much higher than in the community. We would love to hear a full report of this patient pathway or of its wider adoption and use in larger numbers.

As the gold standard remains fluorescein angiography, the need for this to take place in the hospital ophthalmic care setting is self-evident, and it demonstrates what may be achieved within the constraints of current resources. But most important of all, it achieved its primary goal: it was fast.

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Sir,

Patient pathways for macular disease: what will the new optometrist with special interest achieve?

In their article, Ellis *et al*¹ explore the economical and philosophical dilemma of screening for neovascular age-related macular degeneration, or choroidal neovascular membranes (CNV). Although these may be important considerations for those implementing such screening programmes, the complexities of such considerations are of little importance to those who have the disease. Their scepticism regarding the cost effectiveness of such a programme centred purely around community optometrists is, however, valid. There are currently little published data on different CNV screening methods and clearly the ability to implement effective screening will depend on the local health care architecture. Current methods of detecting CNV include periodic fundal examination, Amsler chart distortion, the preferential hyperacuity perimeter,^{2,3} and reporting of symptoms by the patient. Of these, fundal examination by a medical retina specialist +/– fluorescein angiography is the most accurate, but there are huge time constraints on such highly trained individuals working within the NHS system. With a proven effective treatment already available, and promising new treatments on the horizon, it would seem that efficient, cost effective detection of the disease is appropriate.

We recently carried out a prospective study in the Ophthalmology Department of St James's University hospital, Leeds, West Yorkshire, looking at a novel, fast-track assessment service for the refinement of suspected CNV referrals. The primary aim of the study was to determine whether referrals of suspected CNV from community optometrists could be refined by a nurse and photographer team within the department so as to

detect those patients needing urgent intervention by a medical retina specialist. Based on the ophthalmic history and stereoscopic fundus photography, fluorescein angiography was performed if CNV was suspected by the presence of exudation, haemorrhage, and/or elevation of the macula. All referrals and images were subsequently reviewed by a medical retina specialist. The outcome of this review was used as a gold standard, against which the accuracy of the initial referral and of the novel fast-track assessment and refinement service was determined. In the study, 50 consecutive patients referred with suspected CNV by their optometrist, mainly using Amsler chart distortion as the marker of disease, were assessed. Of these 21 patients (42%) had neovascular AMD of whom 19 patients had CNV and two patients had retinal angiomatous proliferations.

This represented a very high false-positive referral rate, which clearly could have implications both in terms of health-care economics and the timely treatment for true positive cases. Where fundal abnormalities were seen by the optometrist the specificity rose from 0 to 41%, but the sensitivity fell to 71%. Information regarding the true false-negative rate among community optometrists was not available. In contrast, the novel fast-track assessment and refinement service demonstrated a specificity and sensitivity of 96 and 90%, respectively. This was achieved with the use of presently available resources, incurring no additional costs and meant those with CNV requiring treatment were seen by a medical retina specialist in a mean of 6 days.

The above data highlight the fact that community optometrists appear to be over-reliant on an abnormal Amsler chart to diagnose neovascular ARMD and may lack the knowledge or confidence to rely on fundus examination instead. Some refinement process is necessary to ensure that patients who may benefit from treatment can be seen quickly, without overloading a medical retina service with inappropriate urgent referrals. Such a refinement process could involve specialist optometrists in the community or in hospital. Alternatively, it may involve ophthalmologists in training⁴ (a recently published article looking at the use of nonstereo digital fundus photographs by ophthalmic interns, for the detection of CNV, found a mean specificity and sensitivity of 85.7 and 78.8%, respectively) or other ophthalmologists. Exactly how this refinement occurs is not important, provided the process has a high sensitivity and specificity and does not induce any additional delay or require additional expenditure given the prevalence of the condition in the UK population.⁵ Our concern about refinement by community optometrists is the imposition of an additional step in the