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CORRESPONDENCE

**Sir,**
**Utilisation of orthoptists to give intravitreal injections—a multidisciplinary approach**

We read with interest the study conducted by the Medical Retina Intravitreal (IVT) Service at Moorfields Eye Hospital reporting the use of nurses to give IVT injections, and wish to report the utilisation of orthoptists at Frimley Park Hospital (FPH) and Oxford Eye Hospital (OEH) to deliver injections as part of their macular services.[1]

With the exponential growth in numbers of patients requiring IVT injections of antivascular endothelial growth factor (antiVEGF) agents for neovascular age-related macular degeneration (nAMD), and for macular oedema in diabetic retinopathy and retinal vein occlusions, there has been a massive increase in the required capacity for clinic appointments and IVT injections.

The IVT Service at FPH utilises both orthoptists and nurses, and the orthoptist also is involved in the outpatient assessment and management of AMD cases. FPH adapted the Moorfields Nurse-Led IVT policy to include orthoptists after obtaining support from the British and Iris Orthoptic Society (BIOS), and then submitted the policy to their Trust and obtained local approvals.

The Guidelines for AMD assessment and IVT policy are currently with the BIOS Professional Development Committee to obtain approval to roll out the training programme to all orthoptists and will be available on the BIOS Special Interest Group for Retinal Disease website.

The OEH is currently training orthoptists based on the FPH model to carry out IVT injections, as well as work in the AMD clinic. Orthoptists and optometrists work alongside specialist medical staff in the clinics to assess and manage AMD.

Both centres have significantly increased their capacity to see and assess patients. At FPH an orthoptist and three nurses are trained, and the OEH has both orthoptists and nurses in training. As this is a relatively new initiative, careful planning, a targeted training programme, specific operating procedures, continuous audit and quality assurance, with robust processes are all mandatory. In the current era, with increasing numbers of patients requiring assessment and IVT intervention, centres using a multidisciplinary approach can address this workload with appropriate training and support. FPH and OEH wish to highlight here the potential of utilising orthoptist AHPs for IVT and AMD clinical services.

**Conflict of interest**

Geeta Menon has attended the Ad boards for Novartis, Allergan, Bayer, Alcon, and Alimera. Research grants have been awarded by Novartis, Bayer, Allergan, and Alcon to Frimley Park Hospital. Mrs Menon has also received travel grants from Bayer and Novartis. Susan Downes has received honoraria in the past for lectures from Bayer and Novartis, and has been a prinicipal investigator on the trials for both Bayer and Novartis. Oxford Eye Hospital has received funding for research personnel and equipment and for educational meetings from Bayer and Novartis. The remaining authors declare no conflict of interest.

**Reference**

1 DaCosta J, Hamilton R, Nago J, Mapani A, Kennedy E, Luckett T *et al*. Implementation of a nurse delivered intravitreal injection service. *Eye* 2014; **28**: 734–740.

SP Mall[1], L North[2], G Menon[2], CM Moorman[1] and SM Downes[1]

[1]Oxford Eye Hospital, Oxford Universities NHS Trust, Oxford, UK
[2]Frimley Park Hospital NHS Foundation Trust, Surrey, UK
E-mail: susan.downes@ndcm.ox.ac.uk

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**Sir,**
**Indemnity for orthoptist-delivered intravitreal injections**

We thank Mall *et al*[1] for their interest in our article relating to nurse-delivered intravitreal injections at Moorfields Eye Hospital (MEH).[2]

We appreciate the fact that the increasing demands for intravitreal injection therapy necessitate novel methods of service delivery. Nurses, as part of their practical professional training, are familiar with aseptic technique, administration of injections, and safe disposal of sharps. For this reason, it was decided to proceed with nurse training for intravitreal injections at MEH. Other allied health professional (AHP) groups within ophthalmology such as optometrists and orthoptists are not usually practically trained in these procedures as they are not generally required as part of their regular professional practice.

We note that professional approval from the British and Irish Orthoptic Society (BIOS) has been sought for orthoptist-delivered intravitreal injections and also Trust approval. However, in the letter from Mall *et al*,[1] there appeared to be no reference to medico-legal consultation on this new scope of professional practice for orthoptists.

At MEH, we obtained medico-legal clarification on the potential risk of clinical negligence related to nurse-delivered intravitreal injections as this was a novel method of drug delivery that did not have a standard published body of evidence to prove safety before we commenced the initiative. We obtained written confirmation of indemnity cover from the National Health Service Litigation Authority (NHSLA) for nurse-delivered intravitreal injections.

We welcome the expansion of training in practical procedures for AHPs including orthoptists. However, it is important that medico-legal issues are clarified in writing for Trust indemnity purposes with the NHSLA, and robust training with appropriate high level supervision and regular audit and competency reviews are implemented for patient safety purposes.

## Conflict of interest

The authors declare no conflict of interest.

## References

1 Mall SP, North L, Menon G, Moorman CM, Downes SM. Utilisation of orthoptists to give intravitreal injections—a multidisciplinary approach. *Eye* 2015; **29**: 290.
2 DaCosta J, Hamilton R, Nago J, Mapani A, Kennedy E, Luckett T *et al*. Implementation of a nurse-delivered intravitreal injection service. *Eye* 2014; **28**: 734–740.

J DaCosta, R Hamilton, J Nago, A Mapani, E Kennedy, T Luckett, C Pavesio and D Flanagan

Moorfields Eye Hospital, London, UK
E-mail: Joanna.DaCosta@moorfields.nhs.uk

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**Sir,**
**Re: 'Fellow eye effect of unilateral intravitreal bevacizumab injection in eyes with diabetic macular edema'**

We read with interest the article 'Fellow eye effect of unilateral intravitreal bevacizumab injection in eyes with diabetic macular edema'.[1] The authors report improvement in the non-injected eye of patients that received unilateral bevacizumab for diabetic macular oedema. A previous study also reported a significant difference in the mean macular thickness of the fellow eye treated with unilateral intravitreal bevacizumab for diabetic macular oedema, but no difference in the fellow eye of those receiving unilateral ranibizumab.[2]

We report a case of a significant improvement in macular thickness of the non-injected eye of a patient receiving unilateral ranibizumab for diabetic macular oedema. To our knowledge, this effect has not previously been reported.

An 81-year-old man with type II diabetes was referred with bilateral diabetic macular oedema. Best-corrected visual acuity was 6/30 in each eye. Baseline OCT scans showed a right central retinal thickness (CRT) of 607 $\mu$m and left CRT of 798 $\mu$m (Figures 1 and 2). Fundus fluorescein angiography demonstrated leaking microaneurysms close to the fovea. The patient elected to initially have ranibizumab therapy only in the right eye. No treatment was performed to the left eye, and there was no significant change to his diabetic medications or glycaemic control. Following three loading phase injections to the right eye, follow-up OCT scanning demonstrated a significant improvement in the macular oedema in both eyes, with the CRT measuring 185 and 157 $\mu$m, respectively (Figures 3 and 4). Unfortunately,

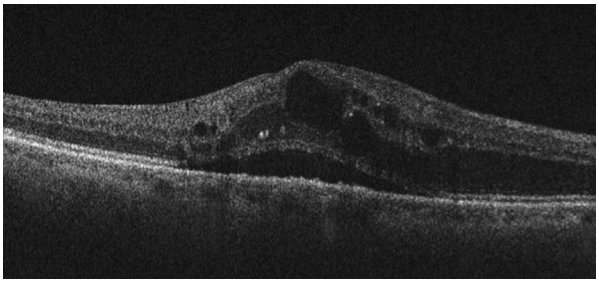

**Figure 1** Pretreatment OCT of right eye showing diabetic macular oedema.

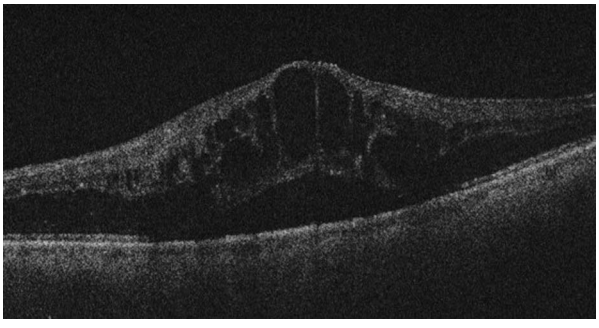

**Figure 2** OCT of left eye showing diabetic macular oedema.

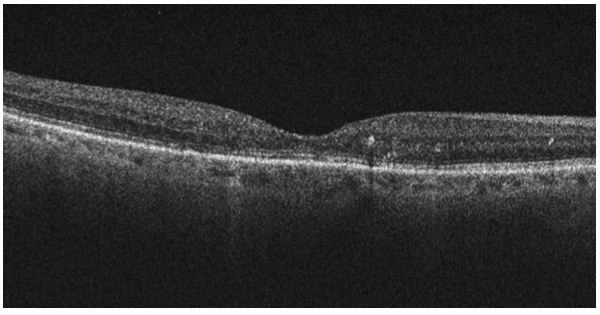

**Figure 3** OCT of the right eye demonstrating improved macular oedema following three loading ranibizumab injections.

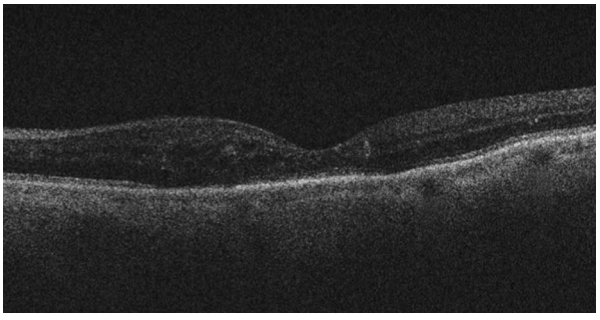

**Figure 4** OCT of the left (non-injected) eye showing improved macular oedema following three loading injections to the right eye.