

**Sir,
Comments on 'Confidence of ophthalmology trainees in the management of posterior capsule rupture and vitreous loss'**

We would like to thank Turnbull and Lash for their study on 'Confidence of ophthalmology trainees in the management of posterior capsule rupture and vitreous loss'¹ and for drawing attention to the importance of training in the management of complications in cataract surgery.

Their study illustrates that confidence in dealing with the complications of cataract surgery cannot be acquired by simply performing 350 cataract procedures and they express a view that 'a competency based assessment framework of assessment in cataract surgery, instead of the current numerical goal of 350 is required.'

The Royal College of Ophthalmologists Curriculum for Ophthalmic Surgical Training (<http://curriculum.rcophth.ac.uk>) in the UK is competency based.

The 350 cases required during training in the UK are not a goal, but a minimum number felt necessary to acquire surgical skills; and the minimum number required to have a meaningful continuous audit of complications.

Developing competence is assessed annually using a specific Objective Assessment of Surgical and Technical Skills (OSATS) assessment and feedback tool (<http://curriculum.rcophth.ac.uk/assessments/osats>). It is mandated that this tool be used on at least 2 occasions per year with a senior trainer, although more frequently is recommended. The tool includes the recording of the difficulty of the case and it is expected that increasingly complex cases will be undertaken as training progresses; these assessments are reviewed at the Annual Review of Competence Progression (ARCP); satisfactory progress is essential for the trainee to continue to the next year of training.

The Learning Outcome (SS4; http://curriculum.rcophth.ac.uk/learning-outcomes/surgical_skills/ss4), this tool assesses, includes the requirement to 'be able to manage intra-operative and post-operative complications'.

We agree with the authors that given the low rates of surgical complication,² this competence may not be developed in the in vivo situation and the curriculum is explicit in the use of simulation to teach and assess such skills.

In short, all trainees should have satisfied this learning outcome and be able to deal with complications before a Certificate of Completion of Training is recommended by their ARCP panel.

Outcomes of cataract surgery are also assessed by separate audit.

Conflict of interest

The authors declare no conflict of interest.

References

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- 2 Johnston RL, Taylor H, Smith R, Sparrow JM. The Cataract National Dataset electronic multi-centre audit of 55,657 operations: variation in posterior capsule rupture rates between surgeons. *Eye (Lond)* 2010; 24(5): 888–893.

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**Sir,
Response to: Comments on 'Confidence of ophthalmology trainees in the management of posterior capsule rupture and vitreous loss'**

We are grateful to Bishop and Spencer,¹ of the Royal College of Ophthalmologists' Training Committee and Curriculum Sub-Committee, for their thoughtful comments regarding our study.² We acknowledge that OSATS represent a form of competency-based assessment, but there is still scope for these tools to become a 'tick-box' exercise.

In our experience, trainees are often assessed on uncomplicated cases, partly due to low complication rates but also because of a fear of receiving poor evaluation if, for example, posterior capsule rupture has occurred—even if the subsequent management of this is deemed satisfactory. This is an unfortunate consequence of the quite generic current format of assessments, with cataract surgery being assessed as a whole, rather than in more discrete components. It may be preferable to introduce more specific assessments for distinct aspects of cataract surgery, for example, 'managing posterior capsule rupture' or 'managing zonular dialysis'. This more targeted form of assessment would avoid trainees selectively seeking assessment on uncomplicated cases that have gone well. Trainees would likely need to seek assessment in simulated scenarios, assuming that the rate of such complications is too low to guarantee adequate exposure during the course of training. This would avoid the situation of trainees completing their training with admirably low complication rates, but with proportionally low experience of managing complex scenarios, which they will be required to handle independently as Consultants.

We are pleased to note that as of 12 September 2016 (5 months after our study was published online) there has been official notification from the RCOphth that the UK ophthalmic specialist training curriculum has been modified to tackle some of these issues.³ There is now an 'Entrustable Professional Activity (EPA1)' assessment, whereby senior trainees must demonstrate that they can manage an entire operating list of cataracts. This is in addition to the standard OSATS, rather than a replacement. We welcome this development, which is certainly an improvement upon the previous system of assessing single cases, and will hopefully increase the

likelihood of trainees being assessed in more complicated scenarios.

Accepting the value of simulation and an enhanced programme of competency-based assessments, we suggest that stating a numerical minimum requirement of cases (regardless of the number chosen) is superfluous and potentially falsely reassuring. Whereas one trainee may attain a high level of competence and confidence after completing a relatively low number of challenging cases, others may still be deficient in managing difficulties after many more uncomplicated cases. We acknowledge that numerical minimum requirements are provided for other subspecialty procedures, and this is appropriate for general ophthalmology training because further subspecialist experience is usually gained during fellowships before taking up a substantive consultant post. However, cataract surgery continues to be performed by most ophthalmologists, regardless of subspecialty or fellowship, and we should therefore be confident that all trainees are adequately trained and practised in the management of complications by the culmination of the training programme.

Conflict of interest

The authors declare no conflict of interest.

References

- 1 Bishop F, Spencer F. Comments on 'Confidence of ophthalmology trainees in the management of posterior capsule rupture and vitreous loss'. *Eye* 2016; epub ahead of print 4 November 2016; doi:10.1038/eye.2016.228.
- 2 Turnbull A, Lash SC. Confidence of ophthalmology specialist trainees in the management of posterior capsule rupture and vitreous loss. *Eye* 2016; 30(7): 943–948.
- 3 Spencer F, Bishop F. Important OST curriculum changes: introduction of the Entrustable Professional Activity tool for managing a cataract operating list (EPA1). Email distributed to all members, Royal College of Ophthalmologists, 12 September 2016.

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Sir, Response to 'Toy' laser macular burns in children: 12-month update

We read with interest the article by Raof *et al*¹ and would like to share our experience of paediatric laser eye injuries in Northern Ireland since setting up at a rapid access Paediatric Ophthalmology Priority Consultation Clinic in September 2013 in the Royal Victoria Hospital, Belfast.

To date, we have assessed 10 children with macular laser burns that have been either inadvertently self-inflicted or allegedly caused by a laser being shone into the child's eye by another child (Table 1). In the seven 'self-inflicted' cases, the toy laser in question was bought abroad or over the internet. Not all children volunteered a history of laser exposure on initial questioning, but after some discussion, it became evident that they had access to toy lasers either at school or through friends.

Interestingly, all of our 10 cases to date have presented in autumn ($n=8$) or winter ($n=2$). We speculate that this apparent 'seasonal' preponderance correlates with children bringing their 'toy lasers' to school after the summer holidays and inadvertently causing laser eye injuries; alternatively, children may only become aware of the visual deficits as they struggle to concentrate on their school work after the summer break.

Four cases were referred after optometric assessment identified asymptomatic macular changes when parents brought their children for routine eye testing. It is highly likely that there are many more asymptomatic children with macular laser burns who have not yet been identified.

It is reassuring that even the most severely affected patient in our cohort with presenting vision of 6/60

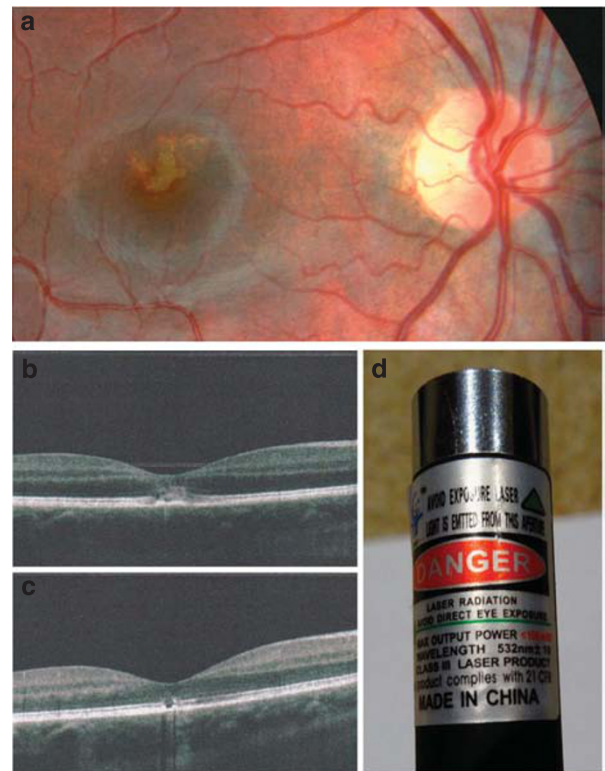


Figure 1 Images for Case 1. (a) Right macula showing central yellowish vitelliform-like lesion at initial presentation. (b) OCT of right fovea at initial presentation when vision was 6/60 revealing a full-thickness hyper-reflective column at the fovea extending to the retinal pigment epithelium (RPE). (c) OCT of right fovea 12 months following presentation when vision had improved to 6/9 revealing focal disruption of the photoreceptor layer and RPE. (d) Causative laser bought while on holidays in Puerto Rico.