Training Guidance

Cataract surgical training in high volume cataract settings

December 2021

Contents

1. Purpose

This training guide supports providers, trainers and trainees by summarising how to standardise the training of cataract surgeons in managing high volume lists successfully. This will enable training to take place in any and all settings that are delivering a local cataract service. Further details can be found in the detailed RCOphth training guide for OST and guidance on cataract surgery.

These guidelines are applicable to all cataract settings to enable consistent delivery of NHS commissioned services for NHS patients.

2. Background

Cataract surgery is the most commonly performed NHS surgical procedure, with over 400,000 cataract operations carried out annually in England and in Wales (NOD report). The publication of the GIRFT national ophthalmology report and the RCOphth The Way Forward Cataract set new benchmarks for cataract surgery taking place in a four hour theatre session, with the guidance stating that 8 routine cataract operations should be completed within this timeframe. A number of cataract units across the UK have been achieving this for some time and there are units where low complexity cases on highly efficient lists can achieve 10-12 cases in four hours in both the NHS and in independent sector (IS) providers.

400,000+

cataract operations performed annually in England and Wales

The RCOphth and GIRFT released guidance in 2021 on how to deliver high volume routine cataract surgery, with the expectation of incorporating training at the level of:

- 8 cases per list for a trainee who is not yet able to complete a cataract operation within 20 minutes to receive supervised training

- 10 cases per list for more experienced trainees who are able to consistently complete a cataract operation within 20 minutes.

The NHS England and Improvement National Eye Care Recovery and Transformation Programme (NECRTP), in association with GIRFT, released planning guidance for 2021-2, with accompanying online resources on the NHSE/I Eye Care Hub (NHS Future), that endorsed the same performance bar, consistent with improving performance across providers to the upper quartile of England performance.

In addition, the proportion of NHS cataract cases performed in the independent sector in England has been rising, particularly with the Covid pandemic limiting availability of lists in NHS trusts. In 2016/17, 89% of all cataract surgery was carried out by NHS trusts, this had fallen in 2020/21 to 54%. This shift of routine cases to the IS and the reduction in NHS lists for cataracts, which are often low priority (P4) when competing for limited NHS theatre space against other areas such as cancer, has severely limited opportunities to train the cataract surgeons of the future. The RCOphth has been working with IS providers of NHS cataract surgery to create and expand surgical training opportunities for trainee ophthalmologists. In November 2021, we published a position statement outlining steps that needed to be taken to ensure that the role played by the IS contributed to sustainable patient care.

This all means that the training opportunities for trainee surgeons will increasingly need to be provided in high volume cataract theatre lists, whether in the NHS or the independent sector. In addition, as cataract surgery provision moves to more routinely high volume in nature, trainees need to be more exposed to, and become comfortable in delivering, high volume lists for their future senior trainee and consultant role.

However, there is enough experience and evidence from high performing units to show that excellent quality surgical training can be delivered without loss of efficiency in high volume cataract lists, with the appropriate approach.

3. Guidelines

Cataract training and goals

Ophthalmology training is a nationalised run-through training programme of 7 years, with cataract surgery taught throughout. Currently, nearly all ophthalmology surgical training of national trainees is conducted in NHS hospitals.

It is essential for all ophthalmology trainees to complete 50 independent cataract operations before progressing to the third year of training. All trainees must have completed a minimum of 350 independent cataract operations by the completion of training to gain their CCT (certificate of completion of training) and be eligible to apply for a consultant post. This must include a 50 consecutive cataract operations audit, with review of outcomes against the National Ophthalmology Database national cataract audit benchmarks. All trainees must complete the appropriate Work Based Assessments relating to cataract surgery at each year of training.

Multifactorial training

All cataract surgeons in training need to be involved in multifactorial training including:

- learn to operate in different theatres and settings
- learn different techniques
- engage in simulation training
- engage in video review of their surgery
- actively reflect upon and record complications and outcomes
- audit of surgical outcomes

The guidelines for these are available on the RCOphth website (audit 50 consecutive cataract operations and continuous rolling audit of cataract complications and outcomes). Any training unit must be able to provide the support network for all multifactorial training to happen.

Supervision

All training must be carried out by an appropriate supervisor who is suitably trained and/or accredited to be a clinical supervisor for cataract surgery. This includes having access to the trainees online e-Portfolio to facilitate and complete the required teaching and 'Work Based Assessments.'

How to train

It has been shown (references below) that teaching cataract surgery in a step-wise ("modular") manner reduces overall complications and the time to achieve completion of all steps.

Given the modern benchmark for cataract lists described above, all trainees must expect to have some modular touch-time on 8 cases per list from the outset, as ultimately (within the new ophthalmology curriculum) they will need to complete a minimum of 8 routine cases in a four-hour theatre session. In lists with a more complex case mix (within a high-volume setting), allocation of trainees with more experience would continue the ability to have high frequency of touch-time ensuring surgical training continues.

The trainees should carry out a step-wise training plan until the trainer/s are happy that they can complete full cases. There should be continuous review of the performance of each modular step, which is properly documented (see appendix 1). This should include a transparent log of which surgical step they are learning/performing, to ensure targeted training and appropriate progress as trainees move between trainers and locations. It also allows proper pre-planning of surgical lists and engagement with multifactorial tools to support the 'step of the week'.

It is not essential that all trainers follow the same order of the steps suggested. It is advised that all early trainees would complete the same step/s on multiple cases on a list to reinforce the skill, rather than complete different steps within the same list. This will increase touch-time and embed each step before moving onto the next.

If the trainer anticipates that a different learning plan is required to meet the needs of the trainee, this should ensure that the trainee can progress and achieve the expected number of completed cases in the agreed training period (usually 6 months minimum). The learning plan for training in the high volume unit should be agreed with the Head of School or Training Programme Director, as they are responsible for trainee allocation.

For ST1s training in high volume lists a minimum of 20 complete cases would be expected in the first year. For ST2s 40 cases; for ST3 and 4 80 cases, ST5 and above 120 cases. It is recommended that the individual trainer provides regular feedback to the Educational Supervisor and the trainee to discuss any updated learning objectives to assist with the trainee's progression.

Requirements for training units

1. Teaching side arm on operating microscope for observation and/or recording of every case that a trainee is operating on.

2. Ability to record and review all operating done by a trainee.

3. Appropriately trained and/or accredited Clinical Supervisors at Gold Guide level with specific competencies required to supervise and train cataract surgery.

4. Rotation of all trainees and at all levels to all training units. This means that ST1 and ST2 can and should go to high volume hubs.

5. Ophthalmic Specialist Trainee representative for each region/deanery to collate feedback from trainees at all hospitals/sites providing local cataract training. This must include any independent sector site that has trainees.

6. External yearly review, by Head of School/Training Programme Director, or their delegated representative, of all cataract training units to ensure appropriate learning outcome accrual.

4. Commissioning of training for sustainable services

All NHS commissioned cataract surgery on NHS patients should have a training element in the contract. It is particularly important to ensure this is specified in NHS commissioned work taking place outside of NHS hospitals. Without training delivery in the IS, given the extent of NHS surgery taking place there, there is a significant and serious risk of a situation in which we simply do not develop the cataract surgeons of the future and become unable to deliver services for the population demand.

Commissioning of all NHS cataract surgical services should be dependent on meeting both requirements for surgical outcomes and for training for any provider.

5. Authors

Sarah Maling, Consultant Stoke Mandeville Hospital (main author)

Melanie Hingorani, Consultant Moorfields Hospital

Fiona Spencer, Consultant Manchester Royal Eye Hospital

Alex Tytko, RCOphth Head of Education and Training

6. References

The State of Basic Surgical Training in the UK: Ophthalmology as a Case Example. Watson MP, Boulton MG, Gibson A. Eye (Lond) 2009 Feb;23(2):488.

Advantages of modular phacoemulsification training. McHugh JA, PGeorgoudis PN, Saleh GM, Tappin MJ. Eye volume 21, pages102–103 (2007)

Freeman MJ, Singh J, Chell P, Barber K . Modular phacoemulsification training adapted for a left-handed trainee. Eye 2004; 18: 35–37

Further ideas to speed up early surgical training. L Benjamin Eye 2009;23:488.

Intensive cataract training: a novel approach. Baxter JM, Lee R, Sharp JAH, Foss AJE and Intensive Cataract Training Study Group. Eye (Lond). 2013; 27: 742–746

Training of Resident Ophthalmologists in Cataract Surgery: A Comparative Study of Two Approaches. Tzamalis A, Lamrogiannis L, Chalvatzis N, Symeonidis C, Dimitrakos S, Tsinopoulos I. J Ophthalmol 2015;932043.

Step-by-step phacoemulsification training program for ophthalmology residents Yulan W, Yaohua S., Jinhua T., Min W. *Indian Journal of Ophthalmology.* 2013;61(11):659–662

Example template for recording of step training

	Draping and microscope	Insertion of healon and staining of capsule	Removal of healon	Healon and lens insertion	Hydrodissection and nucleus rotation	Limbal and side port incisions	Healon, staining and capsulorexhis	Aspiration of cortex	Phaco grooves	Nucleus cracking	Desment removal
Week 1	13:28										
	13:28										
	13:28										
	13:28										
	13:28										
	13:28										
	13:28										
Week 2	X	X									
	X	X									
	X	X									
	X	X									
	X	X									
	X	X									
	X	X									
Week 3	X		X								
	X	X	X								
	X	X	X								
	X	X	X								
		X	X								
		X	X								
		X	X								