

ST3 Trainee experience of cataract surgery training in high flow settings in the independent sector

BY OONAGH CROTHERS AND QASIM MANSOOR

As an ST3 trainee, I was provided with the opportunity to complete a surgical training rotation at Newmedica Middlesborough, which involved cataract training on NHS patients undergoing surgery in the independent sector (IS). This reflective account highlights the experience from a trainee's perspective, providing insight into the exceptional training pathway for future trainees.

Cataract surgery is the most commonly performed surgical procedure within the NHS. According to the Royal College of Ophthalmologists' 2021 guidelines, high-volume cataract surgeries are being routinely performed within the NHS and the IS. As a result, surgical training opportunities for trainee ophthalmologists have increased as IS providers of NHS cataract surgery are effectively delivering quality surgical training while maintaining efficiency within the high-volume setting.

My early cataract training was disrupted due to covid redeployment in ST1 and working in a department with a reduced cataract service during ST2. This was followed by a rotation with the oculoplastic firm, hence there was no cataract list for my first ST3 rotation. My exposure to cataract training opportunities had been limited, and my training extended due to cataract numbers – I had completed 54 full cases before this rotation. I was given the opportunity to train in Newmedica Middlesborough as part of a high-volume cataract list on a weekly basis to gain further experience.

I was initially apprehensive about working in a high flow setting as my previous lists tended to have around six patients each, meaning there was an increase in the number of patients per list to 12. Although this initially made me anxious, through the support of my trainer and the entire team I was soon able to acclimatise to the setting. Over the course of 12 sessions, my trainer guided me through a stepwise progression to improve my surgical and non-technical skills, e.g., leadership, management, and teamwork. Prior to starting my training, I was advised to complete the Royal College of Surgeons Edinburgh Human Factors e-learning. This proved incredibly useful in understanding the potential risks posed to patient safety, and how to avoid such human and system errors. Having a good foundation in Human Factors learning also provided me with opportunities to contribute plenty of ideas for case-based discussion in the subsequent weeks.

“A supportive team is key to ensuring training opportunities can exist across all sectors”



The Newmedica surgical and nursing team.

During the first week, I observed each stage of the patient's journey along the integrated patient pathway for the first half of the list. And I followed the patient as they moved through the patient admissions process, the system of getting their drops administered, the informed consent process, intraocular lens selection, surgery, and discharge, providing me with insight of each stage. For the second half of the patient list, I was given the chance to scrub in with the scrub nurse and set up the custom procedure tray and the phaco machine. I found it enjoyable to partake in the nursing responsibilities as it was a new experience and it allowed me to appreciate the ability of the nurses to readily provide surgical instruments when required by the surgeon.

In the second week, my trainer and I discussed management scenarios specific to a high flow setting prior to starting the list. For instance, dealing with the absence of nursing staff alongside a defective foot pedal and the first four patients having already arrived. For all 12 patients on the list, I was able to scrub in and perform the draping, speculum insertion, and corneal incisions – draping is an essential skill which I learned through practise under the supervision of my trainer.

By week three, I had successfully completed the draping, speculum insertion, incisions, and capsulorhexis on all 12 patients. Through the rapid repetition of these standardised procedures, I was able to improve my proficiency between cases. Additionally, we specified time towards analysing biometry calculations, covering

LEARNING CURVE

the theory behind them and practising using the biometry machine on healthy volunteers.

Commencing week four, I began to lead the team briefing in the mornings – this was useful in ensuring my active engagement in the running of the list and helped anticipate any potential staffing or equipment issues. For the first three patients on this list, I started the case and completed hydrodissection. This included my first capsulorhexis on a completely white dense cataract with no red reflex at all. I then progressed to starting the case and successfully completing the phaco on the next patient. Hence, I was able to complete the rest of the case and three further cases without any issues. I was able to complete four cases in one session with the commendable teamwork of the surgical team, and despite my slow progression, I felt at ease and well supported. The list did not overrun, even though I took my time, as the patient flow through the high-volume system was efficiently managed.

In the subsequent weeks, I continued to lead the team briefing each week and take opportunities to discuss management scenarios and human factors cases with my trainer. With 12 patients on the list, I tended to do five to six full cases each list, while actively taking steps in further cases to work on particular areas that required improvement. My consultant trainer was helpful throughout and provided constructive feedback after each case, highlighting an area or a specific skill to build on for the next.

For example, one week I was having difficulty cracking the nucleus on two cases in a row, and the feedback was that my grooving remained quite tentative and shallow. For the subsequent case, I tried to groove deeper. Unfortunately, I grooved too deep in the periphery and made a hole in the posterior capsule. The consultant had to take over and complete the case after I had removed the heminucleus. It was a disappointing experience when I had been progressing so well prior to this, however the consultant ensured that I speak with the patient to explain what had happened, which was useful for my communication skills and in helping to arrange the ongoing management of the patient. Despite the setback, I found the high-volume list to be beneficial in that it allowed me to complete two further full cases on the same list and rebuild my confidence straight away without having to dwell on it for another week.

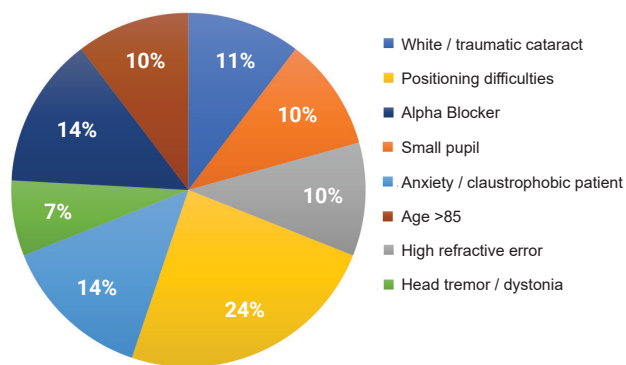
Assisted cases	Full Cases	Complex Cases	Takeover Rate	PCR Rate
20	52	22	9.6%	3%

Summary of cases performed.

As the weeks went on, I took on more complex patients that I previously may have avoided, and I successfully completed cases on patients with head dystonia, white cataract, traumatic cataract, deep-set eyes, and positioning difficulties. I also developed my range of phaco techniques to not just rely on divide and conquer and adapted my surgery for different density cataracts. My trainer also continued to support me both by giving feedback and suggestions in surgery and after surgery, but also encouraging me to anticipate what I will need to make a case easier for myself and to not worry about asking for more viscoelastic. The support from all the nursing staff was also important in making me feel part of the team, and despite it being a fast-paced environment, I felt that the morale was high, and everyone encouraged each other to succeed in our common goals.

I undertook a survey of patients to get their opinions on having a trainee involved in their care and the feedback was overall positive. They fed back that that they were reassured throughout, were happy with their surgeon, and that the processes had all been clearly explained to them.

Factors increasing surgical complexity



Pie chart showing factors increasing complexity.

I have found the training opportunities to be plentiful at Newmedica Middlesbrough, with the system set up to be efficient enough for trainee involvement not to slow down a list. A supportive team is key to ensuring training opportunities can exist across all sectors. As more NHS patients choose to opt for cataract surgery in the independent sector, it is important that more trainees can be supported by their consultant trainers to learn in this environment.

Further Reading

1. The Royal College of Ophthalmologists. Three Steps to Sustainable Patient Care. www.rcophth.ac.uk/wp-content/uploads/2021/11/RCOphth-Three-Steps-to-sustainable-patient-care.pdf
2. The Royal College of Surgeons of Edinburgh. The Non-Technical Skills for Surgeons (NOTSS): System Handbook V2. www.rcsed.ac.uk/media/682516/notss-system-handbook-v20.pdf
3. The Royal College of Surgeons of Edinburgh. NOTSS for Trainees. www.rcsed.ac.uk/professional-support-development-resources/learning-resources/non-technical-skills-for-surgeons-notss/notss-for-trainees

TAKE HOME MESSAGES

- More cataract surgery is being done in the independent sector.
- Modular Cataract Surgery Training in the independent sector is effective at rapidly gaining proficiency and competence with skills.
- Cataract Surgery Training is achievable in high flow settings.
- Understanding of human factors and ergonomics is essential for good team work and efficient flow through a high-volume system.

AUTHORS



Oonagh Crothers,

Specialty Trainee, Northern Deanery, Newcastle, UK.



Qasim Mansoor,

Clinical Director, Teesside Newmedica, and Consultant Ophthalmologist, James Cook University Hospital, Middlesbrough, UK.

Declaration of competing interests: None declared.