

Pathway innovations to address cataract services post-COVID-19

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Background

The demand for cataract services prior to the COVID-19 pandemic was already recognised to be high and growing - in the face of an ageing population and reduced surgical thresholds. When added to the growth in demand for ophthalmic services due to advances in therapies for previously chronic disease (such as wet age-related macular degeneration and diabetic macular oedema), increased life expectancy and new demands for screening services for therapies such as hydroxychloroquine; and in the context of a workforce whose growth was not matching the increased demand placed upon it, it was already clear that something had to change. It is not sustainable for eye departments to continue to use 'traditional' clinical pathways to manage the demands placed on them. In fact, to continue to do so places the care of all patients in jeopardy as the timing of appropriate follow-up intervals, first appointment scheduling and surgical planning become a lottery rather than the result of clinical decisions.

The COVID-19 pandemic required hospital eye departments to make several significant changes to the ways they deliver care:

Immediate effects

- Cancellation of non-urgent care
- Reduction of elective theatre capacity, pending theatre re-utilisation as HDU
- Deferral of routine follow-up and new patient appointments
- Redeployment of clinical staff to support COVID-19 care elsewhere
- Reduced referrals as high street optometrists were closed, and lockdowns prevented people accessing community care.

Long-term effects

- Social distancing rules in waiting rooms has reduced the number of patients seen in each clinic
- Ongoing staff sickness due to highly infectious variants continues to affect services.

Legacy effects

- A backlog of cases, both new referrals and follow-ups - due to the above factors - which would be impossible to reconcile with a traditional model of working, much less so with the reduced capacity and productivity that exists currently.

The solution to these problems is innovation. We must be innovative in the ways in which we see, care for, and follow up our patients. We must be innovative in the ways in which we work with our colleagues across optical, ophthalmic, and medical disciplines, and we must always put our patient's safety and convenience above all else. In order to do this, we are compelled to fundamentally change the ways in which we offer and deliver care.

COVID-19 also heralded significant social changes. People learned to stay in touch with each other using online services, including video conferencing. Older people - who might traditionally have been viewed as reticent to engage with digital services - became expert at using such services to stay in touch. We all became more aware of the tremendous strength of the NHS as a model for care for all, and of its fragility -

perhaps we all felt a sense of responsibility towards it for the first time.

So, what does all this mean for cataract services?

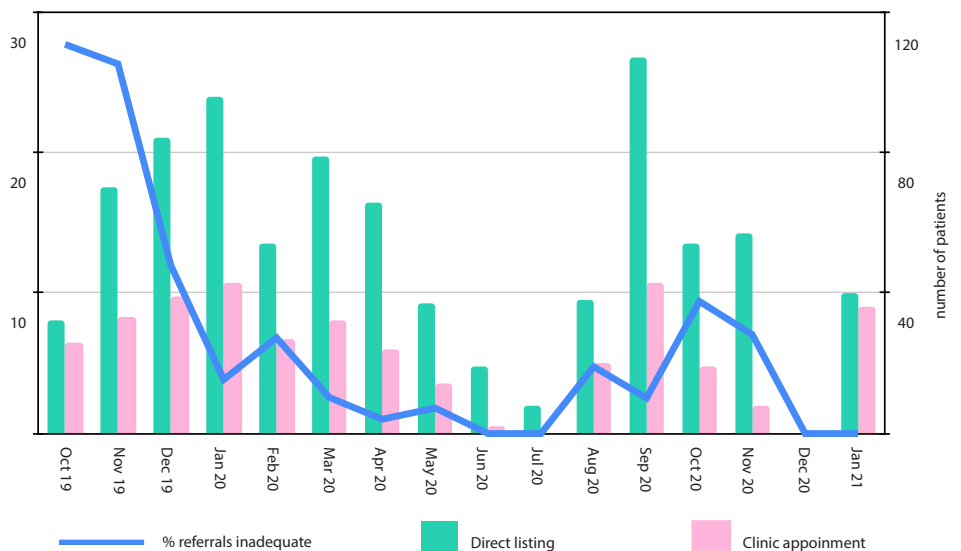
It means an opportunity to fundamentally reimagine the way in which we deliver this service to our patients. It means we must change the way we understand cataract surgery as a profession. We cannot any longer allow ourselves the comfort of congested pathways, with multiple outpatient visits, multiple surgical episodes, and subsequent follow-ups. There simply isn't enough capacity, there are simply too many other people with potentially blinding pathology that we need to see face to face, and there is simply no need to continue to frame our care in 20th Century terms.

See and treat cataract surgery

The purpose of a clinic appointment prior to surgery is threefold:

1. To establish the diagnosis
2. To identify surgical risk factors
3. To deliver information to the patient such that they can make an informed decision about surgery.

Figure 1. Outcomes of enhanced cataract referrals.



None of these tasks require a dedicated face-to-face clinic appointment. The symptoms of cataract are well characterised and not easily confused with other potential pathology. The relevant points of ophthalmic history can be established during a telephone call with the patient, together with the referral from an optometrist. Furthermore, the telephone call allows ample opportunity to discuss the risks and potential benefits of surgery with the patient. This leaves only the clinical examination to determine the presence of specific surgical risk factors (such as Fuchs endothelial dystrophy [FED] or pseudoexfoliation [PXF] for example), which can be carried out during a preoperative ward round in the usual manner.

This 'see and treat' approach creates capacity by both releasing the physical clinic space to be used for other specialty work, and increasing the number of patients in each telephone clinic. Patients are counselled that they will be examined prior to surgery. If, having been examined, it appears that surgery is not indicated, or there are other more pressing issues to be addressed, then surgery will be cancelled, and they will be placed on the appropriate pathway.

The potential drawbacks of this approach are increased 'on the day cancellations', reduced training opportunities and reduced surgical capacity due to late starts after a more comprehensive examination.

We have been running a pilot of the aforementioned telephone see and treat model since late 2021 in Exeter. To date, we have operated 43 eyes of 38 patients, over 12 operating lists – averaging 3.5 per list (an average of 63.5% of cases per list). The average percentage of cases operated by the fellow or trainee on the list was between 25 – 50%, with a total of three on the day cancellations. These were due to systemic hypertension, lack of appropriate equipment (B-scan) and minimal cataract found on the day. The overall productivity of our lists was not reduced compared to traditional operating lists. There were no intraoperative complications in this patient group.

Our experience has shown that it is possible to list patients safely and appropriately for cataract surgery based on a telephone consultation. Carrying out examination and biometry on the day of planned surgery does not reduce theatre productivity or training opportunities.

Patient satisfaction is high, with most patients contacted after surgery agreeing that it is more convenient for them to have a telephone assessment, and then come to the hospital only for the surgery itself. Many commented that they were happy to have a

telephone consultation rather than a face-to-face appointment "if it helped the NHS".

Enhanced cataract referrals

The quality of the initial referral is a strong indicator of the likelihood of proceeding to surgery, and in the see and treat model, gives confidence to the surgeon that the case for surgery, and the specific risks, are understood.

In West Wales, we have piloted an enhanced cataract referral pathway carried out in the community by optometrists who have been trained to assess cataract. The referral document contained tick-box examination criteria which are relevant to cataract. For example, optometrists are asked to confirm the presence or absence of FED and PXF. A separate section of the same document is completed by the patient - who fills in their relevant medical, ophthalmic and drug history, a section on their symptoms and finally a section explaining the risks of surgery and asking them to confirm their understanding. This does not replace consent, but is a useful preface to the discussion and begins the consent journey for the patient, long in advance of the surgery, allowing patients to make better decisions about themselves.

The document replaced the traditional referral document, and was sent to a single surgeon for triaging. Using the information in the document alone, a decision was made to list the patient directly for surgery, bring them to clinic in the traditional model or to discharge.

The pilot ran between October 2019 and November 2020. A total of 1348 referrals were reviewed during the study period. The median conversion to direct listing was 63% (801 patients), 330 patients required an outpatient appointment (Figure 1). There were 217 incomplete referrals, which were returned to the optometrist for further details before being reassessed. The rate of incomplete referrals reduced markedly during the study period, as a result of communication between the consultant and the optometrists. In general, the quality of referrals and clinical information within them was very high.

Because of the impact of the COVID-19 pandemic on surgical capacity at the hospital where the study was carried out, only 70 patients had been operated by late 2021. There were no surgical complications in this group, and patients generally agreed that the community assessment approach was more convenient. Importantly, over 800 outpatient appointment slots were released and available for other subspecialty clinics, reducing backlogs and delays in other areas of the department – at no cost to the quality and safety of the cataract service.

Conclusion

The COVID-19 pandemic highlighted the rising damp which we had known about for years. It highlighted an increasing disparity between demand and capacity within our services, which required a fundamental reimagining of the way we understand what we do, and how we do it. It also provided us with the impetus to change things. Lean models, such as those described in this article, will relieve these pressures. In an upcoming edition of *Eye News*, we will review some of the apps and digital services which will be the tools we use to deliver these changes.

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