Impact of COVID-19 on cataract surgery- patients’ perceptions while waiting for cataract surgery and their willingness to attend hospital for cataract surgery during the easing of lockdown period

Samantha Siaw Zhen Sii1 · Chung Shen Chean1 · Laura Emma Sandland-Taylor2 · Udochukwu Anuforom2 · Deepisha Patel2 · Giang Troung Le2 · Abdul Jabbar Khan1

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To the Editor:

There has been significant re-organisation of Ophthalmology services worldwide to adapt to the COVID-19 pandemic, for instance in glaucoma care [1], acute ophthalmology services [2], as well as uveitis [3], medical retina [4] and oculoplastic care [5].

Elective cataract surgery postponed during the pandemic invariably led to longer wait and possible anxiety among patients [6]. Patients’ apprehension about having cataract surgery during the easing of COVID-19 lockdown should not be ignored. During these unprecedented times, it is therefore important to keep patients informed, particularly about the potential risk of contracting COVID-19 infection during restoration of cataract surgery services [7]. Despite significant changes made within the plethora of Ophthalmology services during this time, there is scarcity of research centred on patients’ perspectives during the restructuring of these services. The aim of this survey is to determine patients’ perceptions while waiting for cataract surgery during the pandemic and their willingness to have their operation following the easing of lockdown.

The survey was carried out using structured questionnaire over the telephone (Appendix 1A) from 14th to 30th June 2020. Patients were recruited from the waiting lists in two hospitals within the UK. Patients who had been given a date for cataract surgery, who could not be contacted after three separate attempts, and who had problems hearing or understanding interview questions were excluded. Vision related quality of life (VRQoL) was assessed by asking patients to grade their level of difficulty in carrying out activities due to their vision. The survey’s composite outcome measures were patients’ concern regarding cataract surgery delay, their willingness to attend hospital for cataract surgery during easing of the COVID-19 lockdown, and their maximum acceptable waiting time (MAWT) for cataract surgery [8, 9].

Additional demographic data including visual acuity and ocular comorbidities were collected from clinic letters and the electronic medical records. Statistical analysis was carried out using Pearson’s chi-square test. As this survey lied outside the scope of the UK Policy Framework for Health and Social Research, the need for independent ethical review was waived by the local research ethics committee.

There were 180 patients on the waiting list. 120 eligible patients completed the interview (Fig. 1). Demographic information and results of patients’ responses to the questionnaire are shown in Table 1.

Our survey showed that the current pandemic did not affect patients’ decision to attend hospital for cataract surgery as 83.3% indicated their willingness to come for cataract surgery. Our survey showed that patients who reported worse VRQoL and higher level of concern regarding delay were more likely to have a MAWT <3 months, which is statistically significant ($p < 0.05$) (Appendix 1B). However, those with ocular comorbidities other than cataract were more likely to have a MAWT >3 months ($p < 0.05$). Predictors for those prioritising vision needs over official public health advice include male gender ($p = 0.022$), younger age ($p = 0.002$) and those who normally drive ($p = 0.014$).
**Fig. 1** Flow chart showing the recruitment of patients according to eligibility criteria.

**Table 1** Table showing demographic information of patients recruited and their responses to items on the questionnaire.

| Type of demographic information       | Number of respondents N (%) |
|---------------------------------------|-----------------------------|
| Gender                                |                             |
| Male                                  | 50 (41.7)                   |
| Female                                | 70 (58.3)                   |
| Age                                   |                             |
| Mean ± SD (Range)                     | 76.92 ± 8.65 (39–96)        |
| Number of days since listed           |                             |
| Mean (Range)                          | 134.4 (51–401)              |
| Vision in listed eye                  |                             |
| Mean (Range)                          | 0.59 (0.04–1.66)            |
| Vision in other eye                   |                             |
| Mean (Range)                          | 0.35 (–0.12–1.66)           |
| First/second eye                      |                             |
| First eye                             | 82 (68.3)                   |
| Second eye                            | 38 (31.7)                   |
| Other ocular comorbidities            |                             |
| Yes                                   | 74 (61.7)                   |
| No                                    | 46 (38.3)                   |
| Responses to questionnaire items*     |                             |
| Driving status                        |                             |
| Yes                                   | 66 (55)                     |
| No                                    | 54 (45)                     |
| Profession                            |                             |
| Unemployed                            | 2 (1.7)                     |
| Employed                              | 7 (5.8)                     |
| Retired                               | 111 (92.5)                  |
| Living alone                          |                             |
| Yes                                   | 62 (51.7)                   |
| No                                    | 58 (48.3)                   |
| Main carer                            |                             |
| Yes                                   | 12 (10)                     |
| No                                    | 108 (90)                    |
| (continued)                           |                             |
| Patient reported health status score  |                             |
| 1 being worst and 5 being best general health | 3.5 (1–5) |
| Shielding                             |                             |
| Yes                                   | 55 (45.5)                   |
| No                                    | 65 (54.5)                   |
| Vision related quality of life (VRQOL)|                             |
| No difficulty                         | 16 (13.3)                   |
| Slight difficulty                     | 48 (40)                     |
| Moderate difficulty                   | 35 (29.2)                   |
| Severe difficulty                     | 21 (17.5)                   |
| Stability of symptoms during wait     |                             |
| Stable                                | 45 (37.5)                   |
| Gotten worse                          | 75 (62.5)                   |
| Has COVID-19 affected willingness to  |                             |
| attend hospital for surgery           |                             |
| Yes                                   | 20 (16.7)                   |
| No                                    | 100 (83.3)                  |
| Concern with delay                    |                             |
| Not concerned at all                  | 25 (20.8)                   |
| Slightly concerned                    | 40 (33.3)                   |
| Moderately concerned                  | 34 (28.3)                   |
| Very concerned                        | 21 (17.6)                   |
| Maximum acceptable wait time (MAWT)   |                             |
| <3 months                             | 95 (79.2)                   |
| 3–6 months                            | 18 (15)                     |
| 6–12 months                           | 7 (5.8)                     |
| Factors affecting decision            |                             |
| Public health advice                  | 16 (13.3)                   |
| Visual needs                          | 48 (40)                     |
| Both                                  | 35 (29.2)                   |
| Neither                               | 21 (17.5)                   |
| Communication about waiting time      |                             |
| Yes                                   | 111 (92.5)                  |
| No                                    | 9 (7.5)                     |
Our survey results could not be generalised to other hospital trusts within the UK due to the small sample size. Furthermore, confounding factors were not accounted for during data analysis. However, we found that VRQoL, independent of visual acuity is an important factor to be taken into consideration when listing patients for cataract surgery [9, 10]. Communication about waiting time to manage expectations is essential to dampen patient anxiety whilst waiting for cataract surgery.

Patient prioritisation for cataract surgery during the restoration of cataract surgery services may need to take account patients’ visual needs and their willingness to come rather than waiting time criteria or referral to treatment targets.

Compliance with ethical standards

Conflict of interest The authors declare that they have no conflict of interest.

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