

1 **Patient perceptions on telemedicine eye clinics during COVID-19**
2 **pandemic**

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24 Tele-medicine is increasingly recognized as a useful and effective alternative clinical
25 care-pathway for managing patients with various medical conditions including ocular
26 diseases (1,2). The severe disruption from the COVID-19 pandemic on routine
27 clinical activities had led to further implementation and adaption of such pathways in
28 meeting clinical priorities and reducing the risk of COVID-19 exposure for all those
29 involved (3,4).

30 Although the effectiveness of telemedicine and guidance on setting such
31 telemedicine clinics are readily available, very little is known on patient perceptions
32 on this modified patients' care pathway in any specialty (1). We believe
33 understanding patient perceptions and satisfaction plays an important role in
34 improving the existing telemedicine service. We therefore conducted a telephone
35 survey of a group of patients who had a 'tele-eye' clinic experience during the early
36 stage of the COVID-19 pandemic in 2020.

37 During the pandemic, the majority of patients in our department who previously
38 attended face-to-face Retinal-Vein-Occlusion clinics were channeled to either
39 receive a telephone-consultation alone (TC) from a specialist or to attend a hospital-
40 based diagnostic virtual-clinic (VC) without a doctor's consultation. Patients of TC
41 group had their management plan decided over the telephone based on subjective
42 symptoms and medical notes. The VC group would receive a letter from the
43 specialist detailing results and treatment plan following the remote review of all test
44 results (vision, tonometry, OCT scan and widefield fundus photography).

45 The survey was conducted by completing a short standard questionnaire over the
46 phone on a random selection of 100 patients (50 TC, 50 VC) who had recently
47 attended ‘tele-eye’ clinics and were available to answer the telephone questionnaire.
48 Table 1 shows our survey results. The mean age and ethnicity profile in both TC and
49 VC groups were similar whereas there were slightly more male responders in the TC
50 group. Nearly all patients were happy with their last “tele-eye” clinic experience
51 (94%TC, 100%VC) with high mean satisfaction score of 9 (highest positive
52 satisfaction score is 10). The majority had no particular concerns with the last tele-
53 eye clinic (86%TC, 88%VC) and were happy to re-attend similar tele-eye clinics in
54 future (80%TC, 74%VC) if needed. However, some patients had reservations on the
55 impact of such clinics on their future eye-care-plan: only 64% from VC group felt the
56 “tele-eye” clinic was definitely adequate to decide on their future treatment plan, with
57 a much less positive response from TC group (44%). If given an option of clinic
58 choice, 58%TC and 64%VC would prefer to attend the face-to-face clinic, and
59 around 10% or less would choose TC or VC choices, with patients’ frequent
60 reasons / comments as listed in Table 1.

61 In summary, patients expressed high satisfaction with our current “tele-eye” clinic
62 set-up during the COVID-19 pandemic, but face-to-face eye clinics remain a
63 preference of choice by these patients. Although the “tele-eye” clinic may be an
64 effective option to meet challenging clinical demands, retaining some attendance at
65 a face-to-face clinic (perhaps alternating clinics) may help to address patients’
66 satisfaction and confidence in accessing eye care and improving communication.

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