

Virtual Clinics for Diabetic Retinopathy Monitoring: Patient Perspectives

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Background:

The COVID-19 pandemic resulted in a significant reduction of patients seen at the Diabetic Retinopathy Clinics in Fife. Although patients with high risk disease were still invited for appointments, patients with more stable disease had appointments cancelled in order to reduce patient numbers in the hospital to maintain social distancing. Given the possibility that COVID-19 may take months to years to recover, an alternative strategy of monitoring patients is required.

Virtual clinics has been demonstrated in many branches of Medicine to be effective for disease screening and monitoring.

Aim:

A survey of patient perception of virtual clinics for diabetic retinopathy monitoring by the Hospital Eye Service (HES) and Community Optometrists

References:

- Nicola M, O'Neill N, Sohrabi C, Khan M, Agha M, Agha R. Evidence based management guideline for the COVID-19 pandemic - Review article. *Int J Surg*. 2020;77:206-216. doi:10.1016/j.ijsu.2020.04.001
- Host BK, Turner AW, Muir J. Real-time teleophthalmology video consultation: an analysis of patient satisfaction in rural Western Australia. *Clin Exp Optom*. 2018;101(1):129-134. doi:10.1111/cxo.12535

Methods:

Patients were sent invitations to the HES or community optometrist for monitoring, decided by the Consultant Ophthalmologist.

All images obtained were reviewed by the Consultant Ophthalmologist who advised on management plan which was communicated to the patient via a telephone call or written communication.

Verbal consent was obtained from all patients.

Diabetic Virtual Clinic Survey Questions	
Demographics	
1. Are you happy for us to collect data with regards to your age, sex, and diabetic and ophthalmology history?	
Overall Satisfaction	
2. Overall, how satisfied are you with your recent virtual clinic consultation?	
a. Very dissatisfied	
b. Dissatisfied	
c. Neutral	
d. Satisfied	
e. Very satisfied	
Patient Understanding	
3. What do you understand about the results of your eye appointment? (open question)	
Features of virtual clinic (Strongly disagree, disagree, neutral, agree, strongly agree for the following questions unless stated otherwise)	
4. I am confident that the eye-specialist was able to provide an appropriate plan even without a face-to-face appointment.	
5. I am happy with the idea of only coming to clinic when necessary (e.g. further tests)	
6. Virtual clinics enable me to save money.	
7. The time I spent waiting to be seen is significantly shorter compared to conventional face-to-face clinics.	
8. I am pleased that I did not require any dilation drops today.	
9. The lack of face to face contact is a problem for managing my eye health.	
10. I would like to use virtual clinics... (never again, every other visit, every time)	
Free question:	
Do you have any suggestions to improve the virtual clinic service?	

Figure 1: Survey questions used in the study.

Results:

36 patients were recruited to the study but 4 were excluded as they were not contactable for the survey. Table 1 summarises the demographics of the patients included.

Characteristics	N (%)
Gender (M)	22 (61.1)
Age (Median (IQR))	60 (51 to 66.5)
Diagnosis (Eye)	
Mild NPDR	8 (11.4)
Moderate NPDR	14 (20.0)
Severe NPDR	8 (11.4)
PDR – Low risk	6 (8.6)
Treated PDR	34 (48.6)
Maculopathy	
Nil	29 (40.8)
Not requiring treatment	22 (31.0)
Ischaemic	1 (1.4)
Treated DMO – IVT	17 (23.9)
Treated DMO – Laser	2 (2.8)

Table 1: Patient Demographics

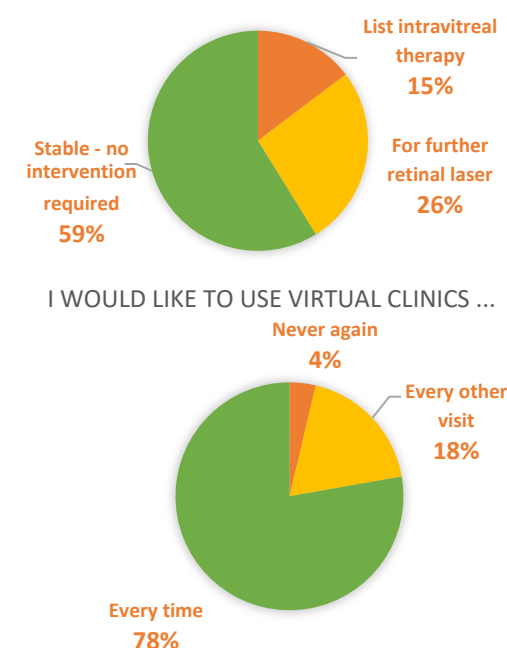


Figure 2: Outcome of Virtual Clinic Consultations

Results:

All patients understood the outcome of their consultations and were either satisfied or very satisfied with virtual clinics.

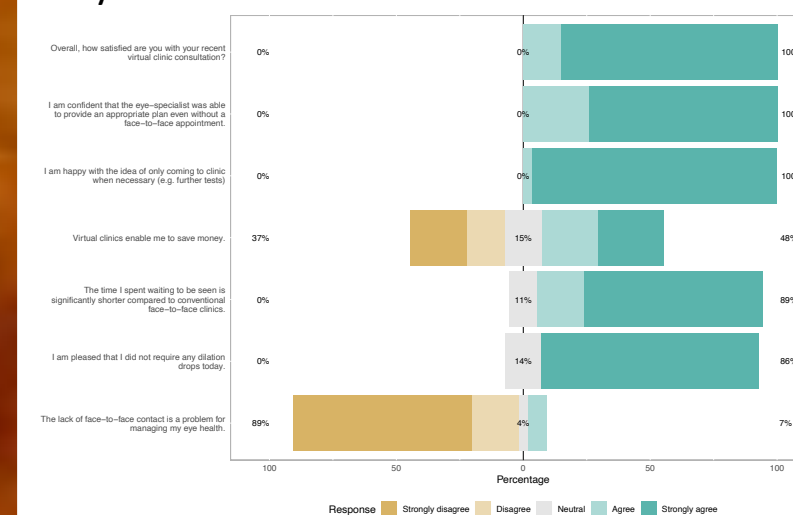


Figure 3: Bar chart of survey questionnaire outcomes.

There was no significant difference in outcomes between virtual clinic outcomes by the HES and community optometrists ($P > 0.05$).

Conclusions:

Patient perception of virtual clinics have been overwhelmingly positive. Involvement of community optometrists in diabetic retinopathy monitoring will further allow reduction in hospital foot-fall and thus aid in maintaining social distancing.