Lessons Learnt from Pilot Vitreoretinal Virtual service in Tertiary Referral Centre

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Introduction and Purpose

- The COVID-19 pandemic has forced us to reconsider how we deliver care, leading to the pilot of new virtual services in an attempt to reduce face to face (F2F) appointments.[1]
- The Vitreoretinal virtual service took referrals to tertiary care by delivering telephone clinics.
- Telephone clinics were largely made possible by the recent widespread availability of OCT scanning in the community optometry practices.[2]
- This study aimed to analyse the efficacy of our virtual clinics, and to reflect on the lessons learned in how we can improve the delivery of these services

Design and Methods

- A retrospective study spanning 29/11/2021 - 13/06/2022.
- All patients booked into the virtual telephone clinics for one consultant were identified through TrakCare records.
- From these records each patients' referral letter and clinic letter were reviewed, along with any accompanying OCT scans from Opticians.
- Information including provisional diagnosis, patients' complaints, final diagnosis, patient outcome, OCT score were collated on a database and assessed.
- Patients were also sent a questionnaire to assess their experience accessing the virtual clinic.

OCT Scoring System	
Criteria	**Points Awarded**
Scan shows section through the fovea	1
Quality of OCT scan acceptable, as per signal strength	1
Serial scans provided	1
Point awarded for each of the above criteria, giving a maximum score of 3 for the scans with the highest diagnostic quality, and a minimum of 0 for the lowest quality scans.	

Figure 1. Table showing OCT Scoring System

Results

Analysis of Referrals

- Of the 258 patients, 114 were referred by community optometrists, 107 by Ophthalmologist's within our Healthboard, and 37 from other Healthboards.
- 60% of patients were given a correct diagnosis by the referring clinician.

Patient Outcomes

- 258 patients attended the virtual clinics, of these 159 were either discharged or declined treatment, demonstrating a 62% reduction in F2F hospital appointments.
- These outcomes are shown in figure 2.

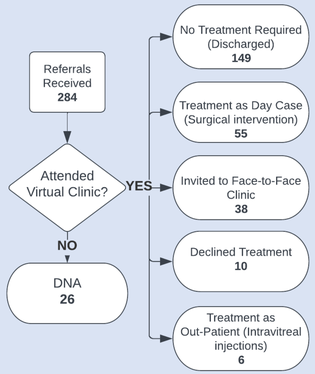


Figure 2. Flow chart showing outcomes for patients referred to virtual clinic

Primary Diagnosis

- Figure 3 shows the final diagnosis of patients.
- The 3 most prevalent diagnosis in these clinics were Epiretinal Membrane, Vitreomacular Traction and Macular Hole, collectively accounting for over 70% of all diagnosis, OCT shown in figure 4.
- 11% had no ocular pathology and 2% of referrals had insufficient information for a diagnosis to be made in the virtual clinic.

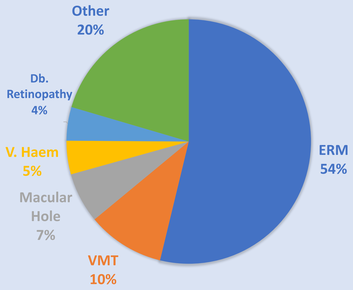


Figure 3. Pie chart showing primary diagnoses of patients assessed in the virtual clinic

Patient Experience Questionnaire

- 70 patients responded to our questionnaire sent via mail.
- 86% of patients reported that the process of attending the virtual clinic was straight-forward and accessible to them.
- 63% of patients reported confidence in the quality of care received.
- When asked if they would attend a virtual clinic again, 48% of patients answered yes. Responses to this question varied by patient outcome, of those who were listed for surgery, over 69% responded yes.

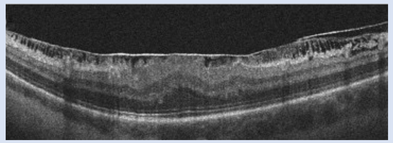


Figure 4a. OCT showing Epiretinal Membrane

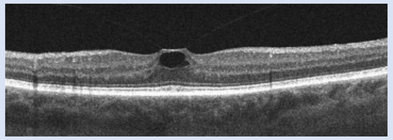


Figure 4b. OCT showing Vitreomacular traction

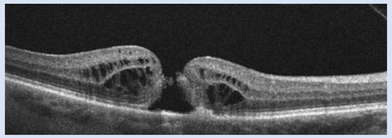


Figure 4c. OCT showing Full-thickness macular hole

Figure 4. OCT Scans showing the 3 most prevalent diagnoses from the virtual clinics.[3]

OCT Scans from Optometrist Referrals

- Of the 114 referrals made by community optometrists, 72% included an OCT scan. The most commonly used OCT systems were Nidek (54%), followed by Topcon (27%).
- Grading of these OCT scans with our scoring system provided the results shown in figure 5.
- Over 89% of scans scored ≥2/3.

OCT Score	No. of Patients
Score of 3	6
Score of 2	67
Score of 1	7
Score of 0	2

Figure 5. Table shows the OCT scores given to the scans of patients referred by optometrists.

Discussion

- From our study of 258 patients, the combination of patients requiring no further treatment, those opting for treatment in the private sector and those declining treatment demonstrated a **62% reduction in the number of Face to Face hospital appointments required**.
- 72% opticians referrals included OCT scans, of which 89% scored ≥2/3 points, demonstrating great availability and quality.
- A key limitation of OCT from the community is the lack of integration with NHS systems, meaning only screenshots can be shared in referrals. A barrier to integration may have been the variability in OCT systems used, however in our study 81% of scans came from only 2 OCT systems highlighting a realistic opportunity for integration.
- Our patients' confidence in virtual clinics was likely hindered by transition hesitance. A letter or leaflet of information detailing how virtual clinics work and utilise OCT may help to build public confidence in the use of virtual clinics in future.

Conclusions & Implications for Practice

- A 61% reduction in F2F appointments has significant economic benefits to patients and the NHS, as well as potentially reducing wating lists.[4]
- Continuing virtual clinics in the post-covid era is sustainable due to the good quality of OCT scanning in the community.
- Patients would benefit from being sent information on how virtual clinics function, and detailing how to contact the service if they are unsuitable for virtual clinics (e.g. hearing issues).

References

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