Telemedicine with diagnostic hubs: A solution to the capacity crisis in ophthalmology

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Introduction

Ophthalmology accounts for 10% of all appointments in the UK, with this number set to rise over the coming years as the population ages. Clinic-based care is a finite resource, often limited by the availability of clinical space and access to the multidisciplinary team. Telemedicine and the formation of diagnostic hubs offers a potential solution to help increase capacity and reduce delays in patient care.

Methodology

A service evaluation of a new telemedicine pathway at University Hospital Birmingham NHS Foundation Trust (UHB) between the dates of 01/08/2020 – 27/03/2021. The Telemedicine platform was provided by Big Picture Medical and the staff and equipment in the diagnostic hubs by Health Harmonie.

The administration team at the University Hospital Birmingham contacted all eligible patients to ascertain if they were happy to be seen in the diagnostic hubs and listed any reasons for refusals.

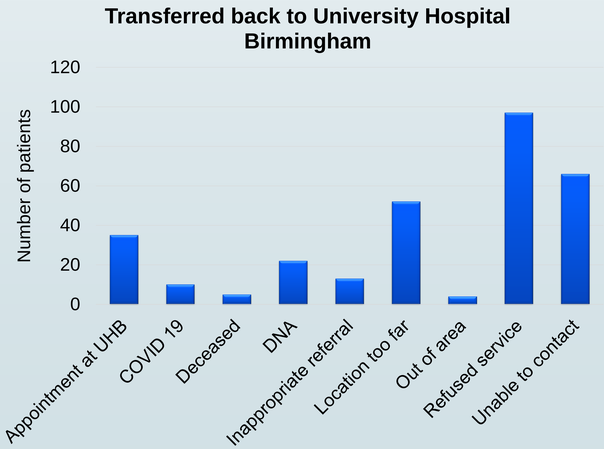
The remaining patients were referred to Health Harmonie for diagnostic imaging and telemedicine consultation using the 'Big Picture' platform.

Results: Referral Pathway

After initial discussion with the administration team **1044 patients** refused the service. The most common reasons cited included; transport and travelling distance **(n=459)** and lack of a personal email address **(n=160).**

Service Analysis

- **1362 referrals** have been made to the service.
- **789 appointments** have been conducted. **120 patients** are awaiting investigation and **150 patients** require booking.
- **304 patients** have been sent back to UHB from Health Harmonie.



Results: First Consultation

703 primary consultations were conducted between the dates of 01/08/2020 – 27/03/2021 using the diagnostic hubs and the telemedicine platform.

The time taken for patients to be referred from UHB to receiving their final review was **59 days.**

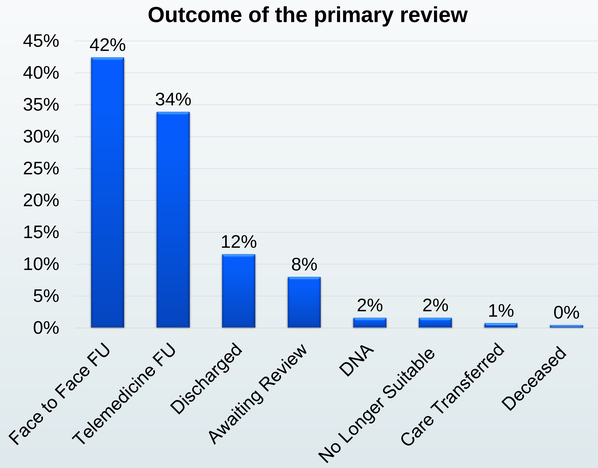
The average wait time from investigations at Health Harmony until final review was **11 days.**

Average time to collect the health data and acquire scans at the diagnostic hubs is **14 minutes (excluding outliers beyond 60 mins).**

Average time for a Consultant Ophthalmology review, involving an assessment of the clinical data and development of a management plan on the cloud-based platform is **12 minutes (excluding outliers beyond 60 mins)**.

Results: Outcomes

The outcome of the primary consultations were assessed.



Conclusion

The use of telemedicine and diagnostic hubs has the potential to revolutionise care and has reduced the need for patients to be seen face to face in UHB by over >40%.

Acknowledgements

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