

## **Project Title**

Post-operative Nurse-led Teleconsultation following Uncomplicated Cataract Surgery

## **Project Lead and Members**

Project lead: Dr Lin Hui En Hazel Anne

Project members: Charmaine Chai, Chris Lim, Catherine Goenadi, Victor Koh, Nur

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## **Organisation(s) Involved**

National University Hospital

## **Healthcare Family Group(s) Involved in this Project**

Medical, Allied Health, Nursing

## **Applicable Specialty or Discipline**

Ophthalmology, Patient Service Associate

## **Project Period**

Start date: Jan 2020

Completed date: Jan 2023

## **Aims**

To reduce the need for manpower intensive physical POW1 clinician reviews and converting these visits into Nurse-led Teleconsultation.

## **Background**

Many post-operative week 1 (POW1) follow ups, done for the purpose of detecting rare (<1/1000) but blinding post-operative infection, were causing overbooked clinics and long waiting time for patients who had to pass through multiple stops in the

Ophthalmology Clinic. This process is also labour intensive, as it involved clinicians, nurses, optometrists and patient service associates (PSAs).

At the same time, our nursing staff lack opportunities for direct patient management and can be upskilled to have a more hands on role in patient care.

## Methods

We involved various staff groups, including Cataract team nurses, PSAs and Optometrists. In the pilot phase, we started with 5 clinicians, who would determine the suitability of Telecare at post-operative day 1.

Patients are given an information sheet (available in English, Mandarin, Malay and Tamil), and our Cataract team nurse will schedule a call at POW1. If there are any ocular issues or concerns by the patient, the nurse would escalate this to the operating surgeon who will determine the necessity for a physical consultation. Over time, this pathway was adopted by all surgeons in the department.

## Results

- After 3 years, we have successfully reduced physical consultation of over 80% of suitable patients following uncomplicated cataract surgery.
- Out of 270 patients, 6 (0.02%) patients were recalled earlier and there were no post- operative complications detected.
- Two (0.007%) of patients were not contactable at POW1 but came for POM1 visit and were found to be well. 6 (0.02%) patients (well at POW1) did not show up for POM1 reviews despite repeated calls.
- All patients, except 1 had good visual outcome at POM1. The patient with poor vision was known to have pre-existing retina pathology.
- None of our patients suffered from post- operative infection (endophthalmitis).
- We were able to grow in patient volume since 2020 at NUH ophthalmology.

## Conclusion

See poster appended/below

### **Project Category**

Care & Process Redesign

Productivity, Manhour Saving

Technology

Digital Health, Telehealth, Tele-Consultation

### **Keywords**

Post-Operative Infection, Clinicians, Nurses, Optometrists, Telecare, Physical Consultation

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# Post-operative Nurse-led Teleconsultation following Uncomplicated Cataract Surgery

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## BACKGROUND / PROBLEMS

Many post-operative week 1 (POW1) follow ups, done for the purpose of detecting rare (<1/1000) but blinding post-operative infection, were causing overbooked clinics and long waiting time for patients who had to pass through multiple stops in the Ophthalmology Clinic. This process is also labour intensive, as it involved clinicians, nurses, optometrists and patient service associates (PSAs).

At the same time, our nursing staff lack opportunities for direct patient management and can be upskilled to have a more hands on role in patient care.

## OBJECTIVE

To reduce the need for manpower intensive physical POW1 clinician reviews and converting these visits into Nurse-led Teleconsultation (Telecare) (Figure 1).

## METHODOLOGY

We involved various staff groups, including Cataract team nurses, PSAs and Optometrists. In the pilot phase, we started with 5 clinicians, who would determine the suitability of Telecare at post-operative day 1 (Figure 2). Patients are given an information sheet (available in English, Mandarin, Malay and Tamil) for reference (Figure 3), and our Cataract team nurse will schedule a call at POW1. If there are any ocular issues or concerns by the patient, the nurse would escalate this to the operating surgeon who will determine the necessity for a physical consultation. Over time, this pathway was adopted by all surgeons in the department.

## RESULTS

- After 3 years, we have successfully reduced physical consultation of over 80% of suitable patients following uncomplicated cataract surgery (Figure 4).
- Out of 270 patients, 6 (0.02%) patients were recalled earlier and there were no post-operative complications detected.
- Two (0.007%) of patients were not contactable at POW1 but came for POM1 visit and were found to be well. 6 (0.02%) patients (well at POW1) did not show up for POM1 reviews despite repeated calls.
- All patients, except 1 had good visual outcome at POM1. The patient with poor vision was known to have pre-existing retina pathology.
- None of our patients suffered from post-operative infection (endophthalmitis).
- We were able to grow in patient volume since 2020 at NUH ophthalmology (Figure 5).

## RESULTS / MEASUREMENTS

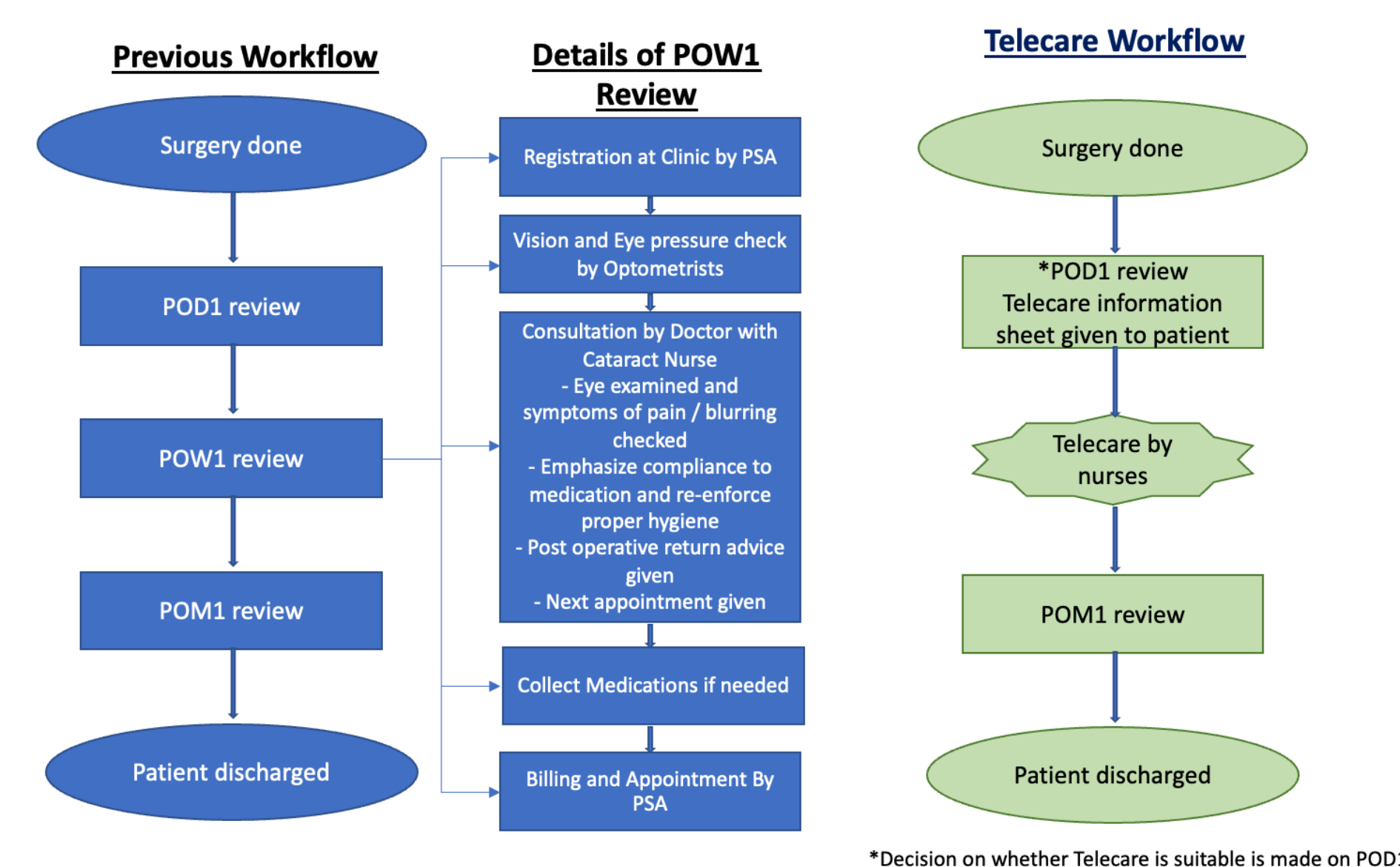


Figure 1. Streamlining of workflow to reduce the need for physical consultation in selected patients.

### Criteria for Telecare

- | Inclusion                                   | Exclusion  |
|---|--|
| ✓ Uncomplicated surgery                     | ➢ Patient factors e.g., known poor compliance, dementia, aphasic |
| ✓ VA compatible with known ocular pathology | ➢ Combined cataract and subspecialty surgery                     |
| ✓ Clear Cornea                              | ➢ Poor hygiene   |
| ✓ Normal IOP                                | ➢ Toric or Multifocal lens                                       |
| ✓ No wound leak                             | ➢ Needs POW1 review for other issues                             |
| ✓ Patient keen to participate               |  |

Figure 2. Clinicians will decide on the suitability of Telecare on post-operative day 1 (POD1).

### Cataract Post-op Care

- Apply prescribed eyedrops (Tobradex) 3hourly to your right/left eye for 1 week
- Reduce frequency to 4 times a day on \_\_\_\_\_
- Our staff will contact you between 7-10 days after your surgery
- If you experience worsening pain or redness or swelling or vision,
  - Before 4PM on Weekdays : Call Eye Surgery Centre at 67722414 to speak to our staff
  - Weekends or After 4PM on Weekdays : Proceed to NUH A&E immediately
- We will see you again in 1 month

Figure 3. Information sheet given to patients at POD1. Available in English, Mandarin, Malay and Tamil.

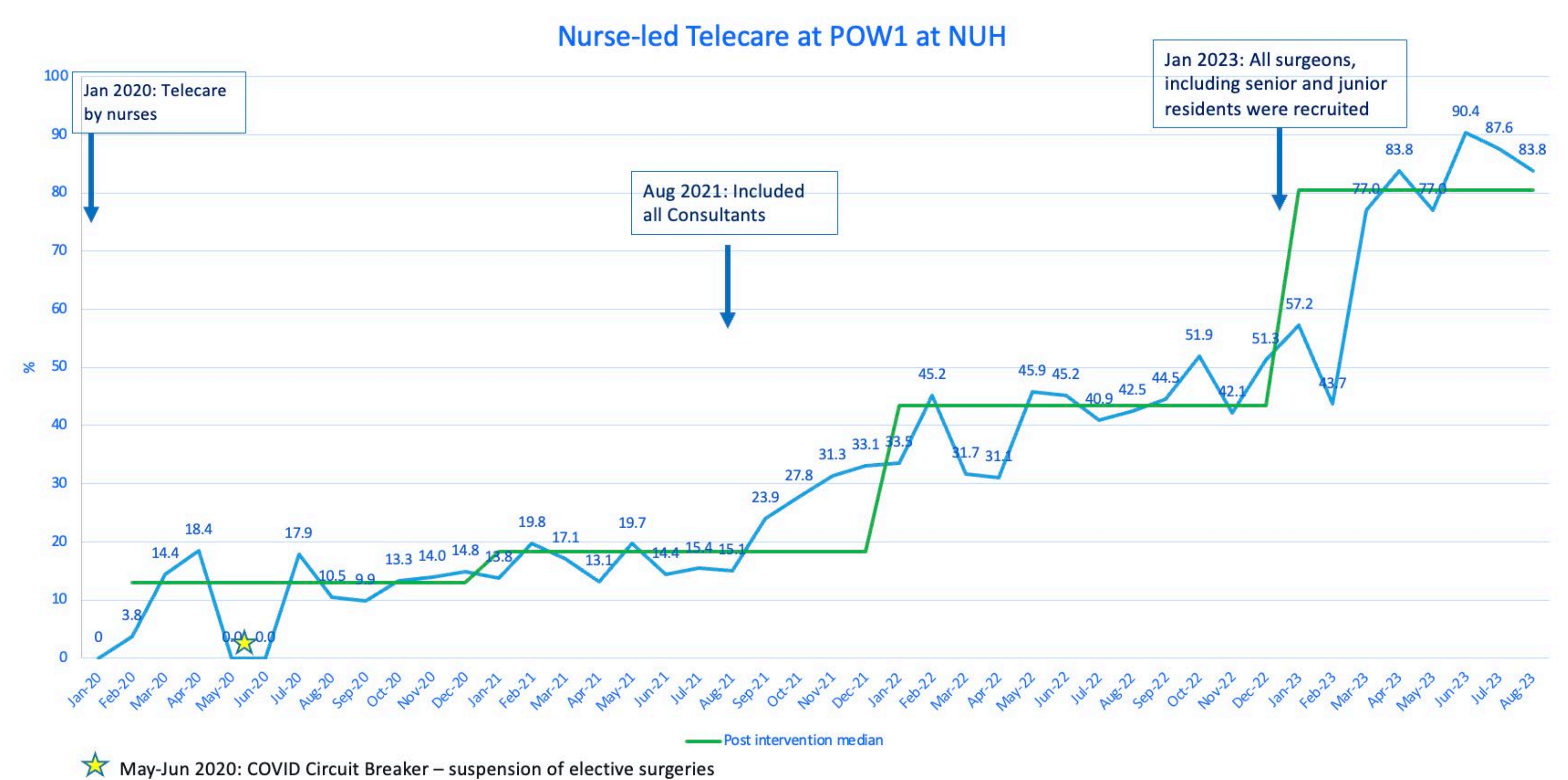


Figure 4. Gradual increase in adoption of Telecare. At present, close to 4000 patients have phone consults at POW1 instead of physical consultation

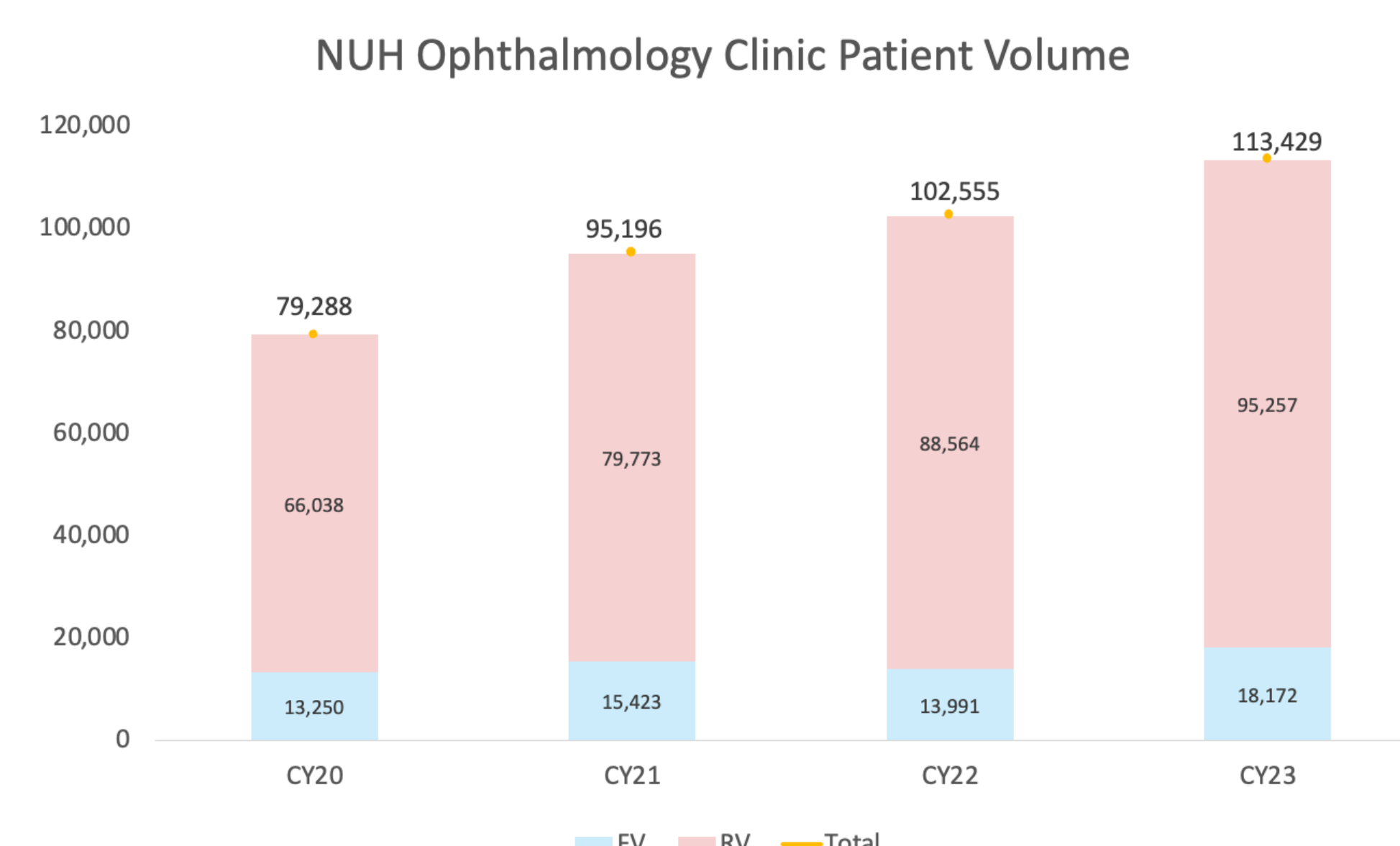


Figure 5. Telecare has been a crucial initiative (amongst others) which has resulted in an increase in other visit types at NUH Ophthalmology