

# One-Stop Direct Referral of Cataract Patients from Community Optometrists to Surgery in NHS Grampian – Pilot Project

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## Introduction

The demand for cataract surgery is expected to increase by 50% over the next 20 years as a result of our ageing population (1). This coupled with stretched resources and long waiting lists necessitates increased efficiency for cataract procedures. Pre-COVID-19, in NHS Grampian, patients would wait up to 12 months for a cataract clinic appointment for assessment and then a further 12 months for surgery (see fig. 1).



Figure 1. NHS Grampian pathway 2019. 3 step pathway

We propose a new pathway for NHS Grampian to improve efficiency by utilising the new General Ophthalmic Services (GOS) code 2.9 for community optometrists in Scotland for Cataract Referral Refinement and Consenting process (see fig. 2). NHS Ayrshire and Arran currently operate a one stop cataract service (2).

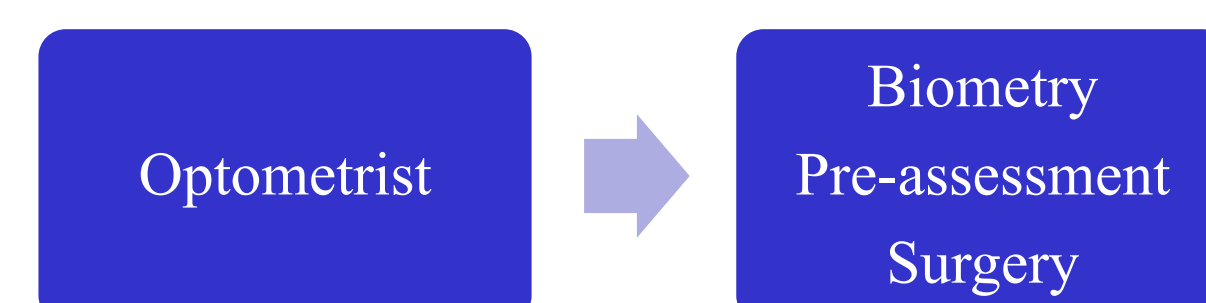


Figure 2. Proposed 1-stop pathway

A pilot project was undertaken at NHS Grampian enabling patients to be assessed and receive their procedure at the same visit to the Eye Outpatient Department.

## Project Aims



## Method

300 consecutive community cataract referrals received between September and October 2018 were assessed for suitability for one stop cataract surgery.

All referrals were assessed by documentation of an ocular assessment (see table 1.)

Inclusion criteria: uncomplicated category one patients and suitable referrals for same day surgery.

A vetting consultant ophthalmologist determined if the referral was suitable for same day surgery. Suitable referrals underwent phone call consultation for enrolment into the study.

Biometry, pre-assessment and consent was carried out on the day of surgery. All cataract operations were performed between February and March 2019 by one consultant ophthalmologist. Patients subsequently received a phone call patient satisfaction questionnaire.

## Results

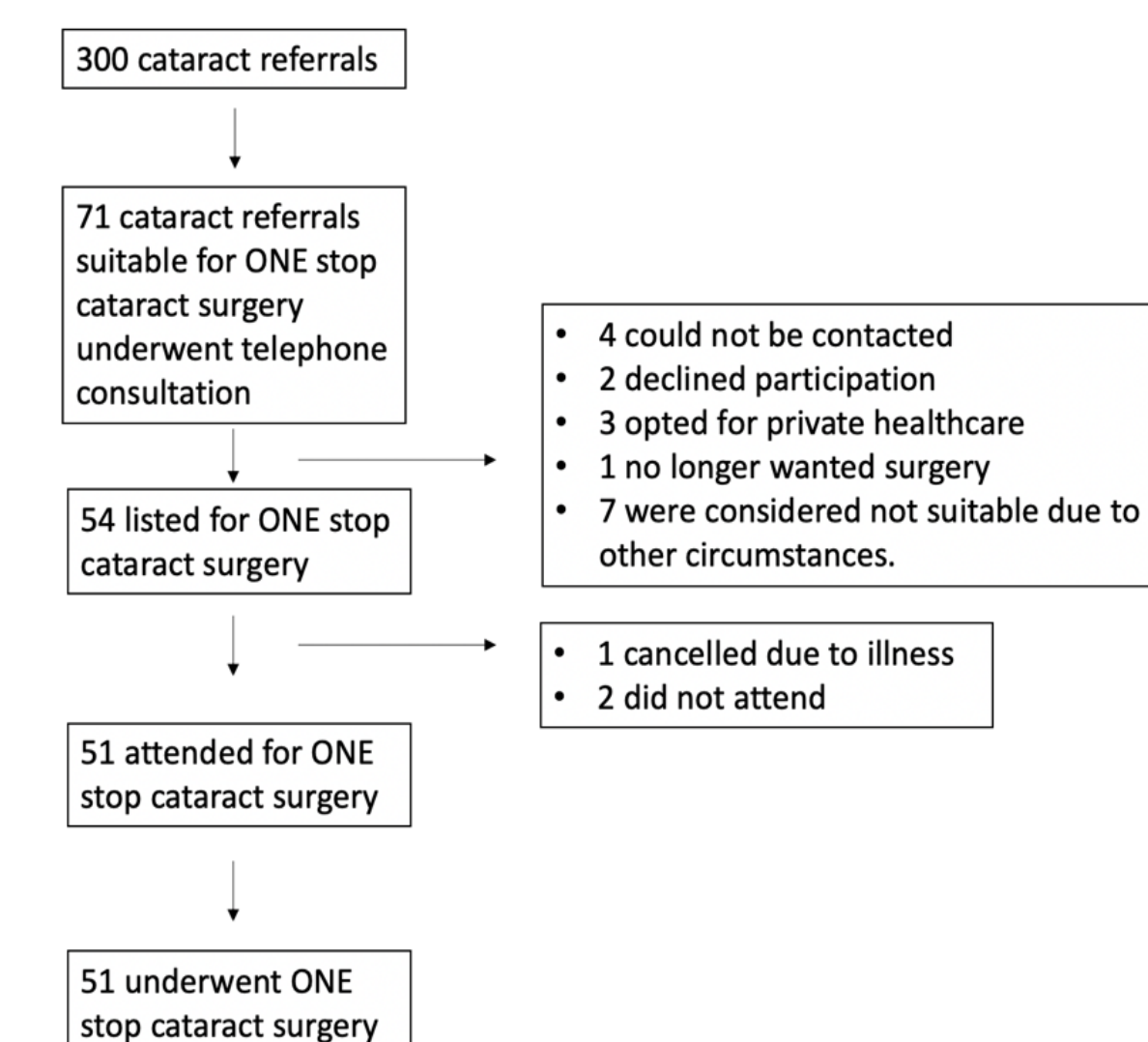


Figure 3. Selection of suitable cataract referrals

71 (24%) suitable patients were identified from vetting 300 referrals. 45 (63%) were female. Median age was 74 years (range 48-94). Pre-operative median visual acuity of operated eyes was 6/12 or 0.30 logMAR (range 0.00–1.00).

Criteria	Unsuitable referrals for same day surgery (n=229)	Suitable referrals for same day surgery (n=71)	Difference between groups (P value)
Refraction	225 (98%)	70 (99%)	0.85 ( $\chi^2=0.04$ )
Symptoms	188 (82%)	64 (90%)	0.11 ( $\chi^2=2.61$ )
Past ocular history	116 (50%)	60 (84%)	<.001 ( $\chi^2=25.61$ )
Drug history	80 (35%)	66 (92%)	<.001
Past medical history	113 (49%)	67 (94%)	<.001 ( $\chi^2=45.77$ )
Appropriate vision	205 (90%)	62 (87%)	0.61 ( $\chi^2=0.27$ )
External eye	80 (35%)	46 (64%)	<.001 ( $\chi^2=19.83$ )
Pupil size after dilation	1 (0.4%)	0 (0%)	0.58 ( $\chi^2=0.31$ )
Density of cataract	191 (83%)	69 (97%)	0.003 ( $\chi^2=8.90$ )
Appearance of retina	181 (79%)	69 (97%)	<.001 ( $\chi^2=12.85$ )

Table 1. Comparison between unsuitable and suitable community cataract referrals

54 patients from this group were selected for the one-stop service following telephone consultation. The median wait time from referral to surgery was 21.4 weeks (range 18.9-37.4 weeks).

51 patients subsequently attended for surgery. There was a 100% conversion rate to same day surgery and no intraoperative complications reported.

Post-operative refractions. 47 of 51 (92%) post-operative refractions were completed and returned. Median post-operative corrected distance visual acuity was 6/7.5 (0.10 logMAR, range -0.10 – 0.30 logMAR). (see fig.4).

Patient satisfaction. 46 (90%) of 51 patients completed a telephone questionnaire. Overall satisfaction was very high.

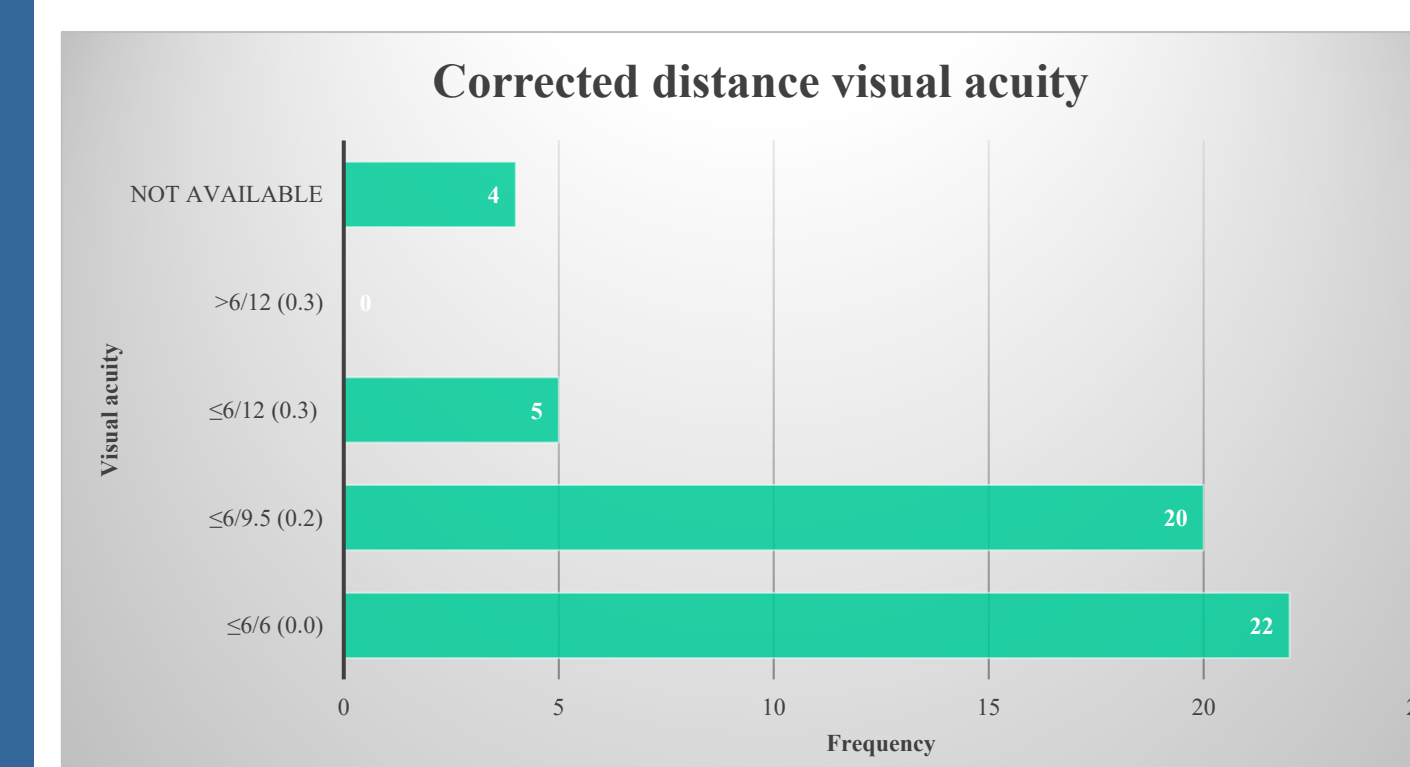


Figure 4. Distribution of post-operative corrected distance visual acuity

## Conclusion

24% of referrals were suitable for one stop cataract surgery. Many more patients may have been suitable but there was insufficient information in the referral to determine suitability.

Referral refinement using the GOS supplement would optimise the quality of referrals with no added costs to the health board. Particular focus should be placed on past ocular, past medical and drug history; external eye and fundus exam; and pupil size after dilation.

The waiting time was significantly reduced for one-stop patients. The pathway reduces pressure on the hospital cataract clinic, complies with COVID risk mitigation measures and provides high patient satisfaction.