Evaluation of Referrals to an Ophthalmology Department and its impact on Post-COVID service planning

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Introduction

The COVID pandemic has changed how eye departments across the UK provide care, as such new solutions are required to provide high quality care to our patients.

The Clinical Decision Unit (CDU) was established in 2007 at NHS Grampian as a triage service, taking referrals from primary care and inpatients through telephone, email, and SCI Store (Trakcare). Patients who require an urgent review are seen in the Urgent Referral Clinic (URC).

The ophthalmology department based at Aberdeen Royal Infirmary (ARI) serves a population of about 500,000 with an annual attendance of 48,000 at the eye clinic.

This service improvement project looks at the type, source of referral into CDU, and the outcome of referral. The results will help plan service provision within our eye department at ARI.
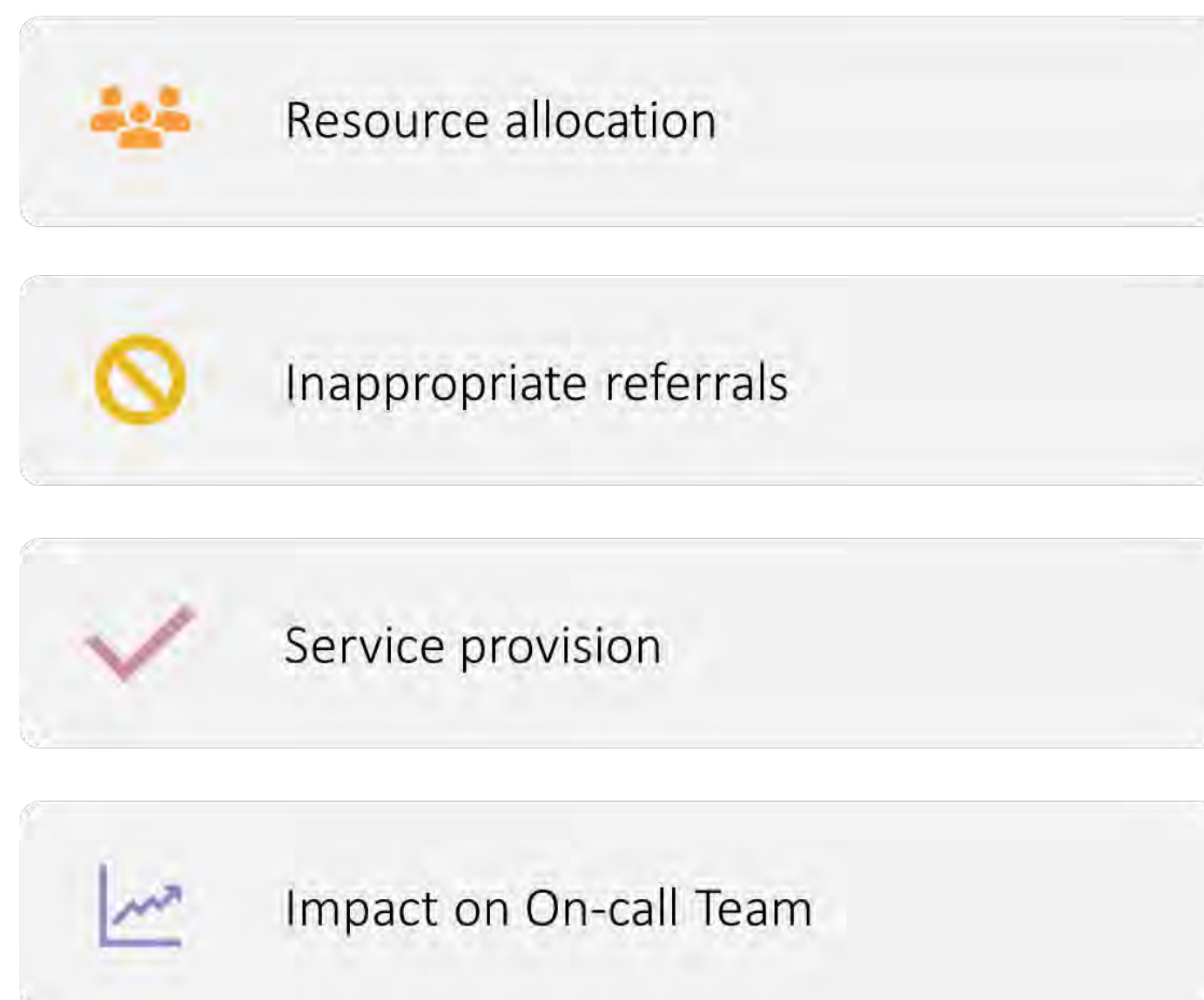
- Resource allocation
- Inappropriate referrals
- Service provision
- Impact on On-call Team

Figure 1: What are the issues prior to COVID-19 pandemic

Aim

The aim is to review referrals that are processed through CDU within the ophthalmology department at ARI.

The objectives:
- To ascertain CDU workload
- To investigate areas of improvement, and find areas to improve service provision

Method

Data was collected prospectively over a two-week period. CDU staff completed a proforma for every "interaction" including a phone call, email or via a SCI store referral. Data obtained included: CHI number, referral type, source of referral and outcome. A total of 525 interactions were made during the two weeks of data collection (**figure 2**)

Follow-up data (such as diagnosis and clinic seen) was collected using other sources of electronic information such as Eye Health Network, Eye Advice Email and SCI Store.
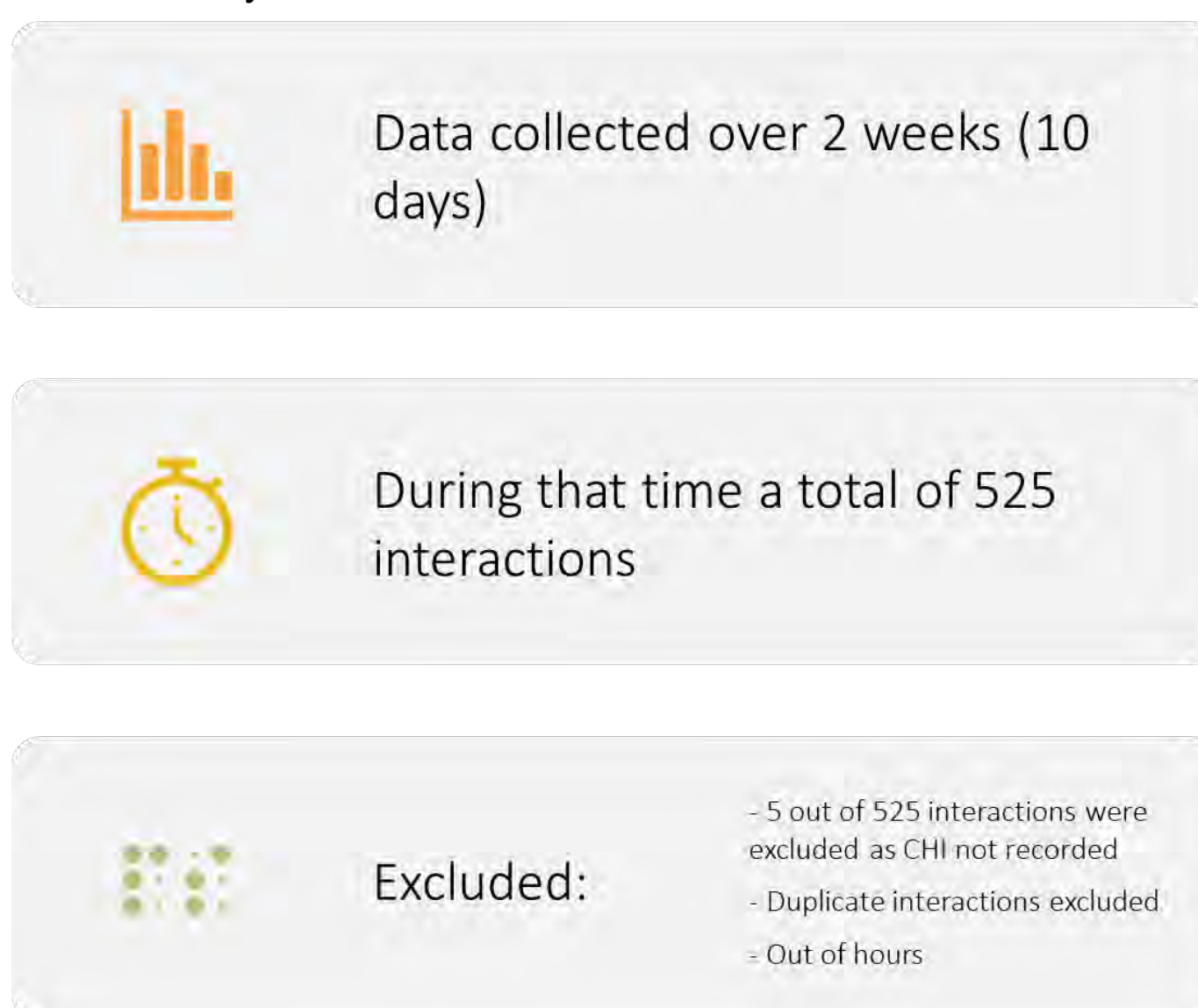
- Data collected over 2 weeks (10 days)
- During that time a total of 525 interactions
- Excluded:
  - 5 out of 525 interactions were excluded as CHI not recorded
  - Duplicate interactions excluded
  - Out of hours

Figure 2. Summary of method

Results

Out of the 520 referrals, 40% resulted in a URC appointment. Telephone and email accounted for 2/3rd of referrals (**figure 3**) and of those referrals 64% were from optometrists (**figure 4**).

The most common sub-specialities referred are shown in **table 1**. About half of URC patients were discharged upon their first visit and of those who required follow-up appointments, a large proportion are anterior segment conditions. (**table 2**).

Specialty	N
Medical retina	49
General	48
Ocular inflammation	47
Cornea	37
Surgical retina	28

Table 1. Interactions by sub specialty

Results

Legend: Email, Phone, TrakCare, Other (Return, Walk-in), Unknown

1% — 1% — 37% — 34% — 27%

Figure 3. Referral type

Legend: Optom, Patient, Inpatient (Ward, Hospital Doctor), A/E

64% — 9% — 8% — 8% — 1% — 6% — 2% — 2%
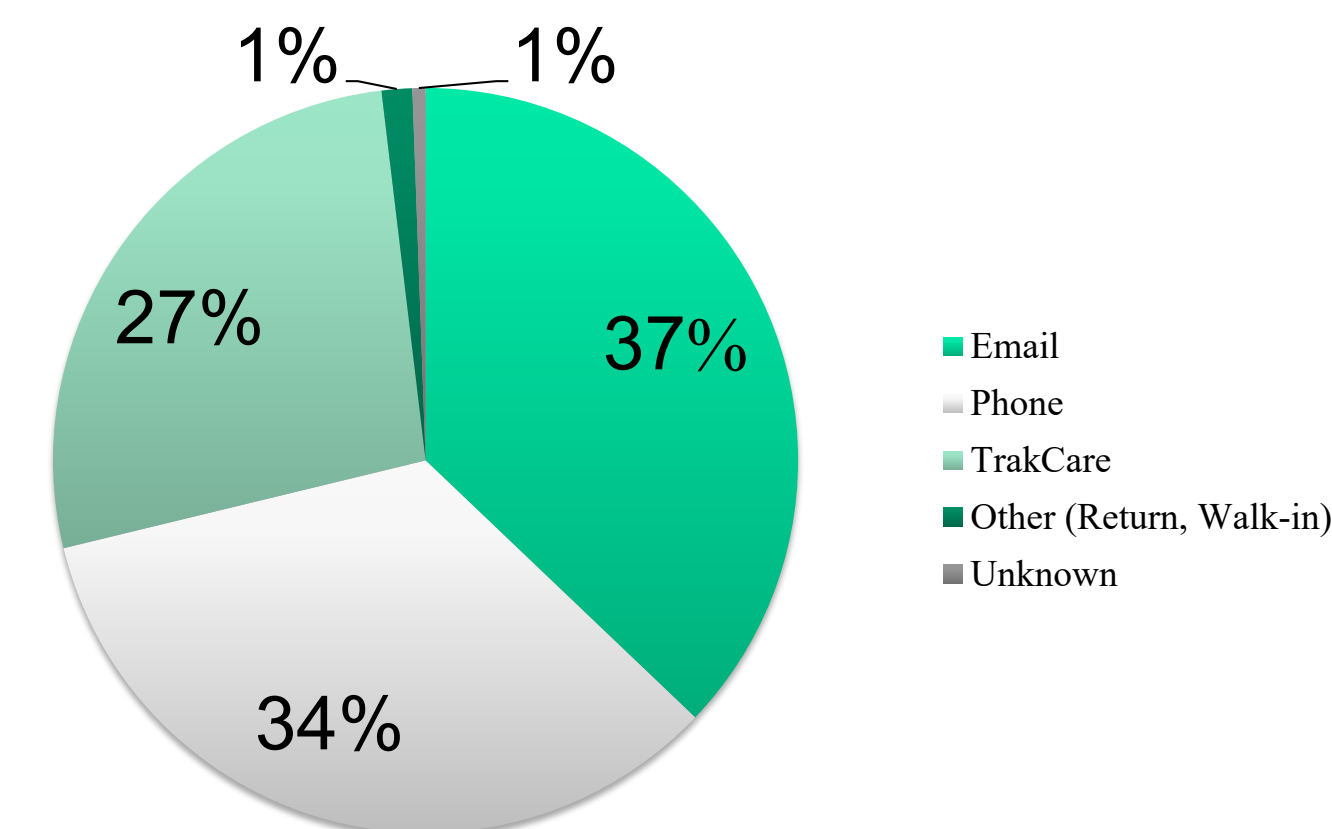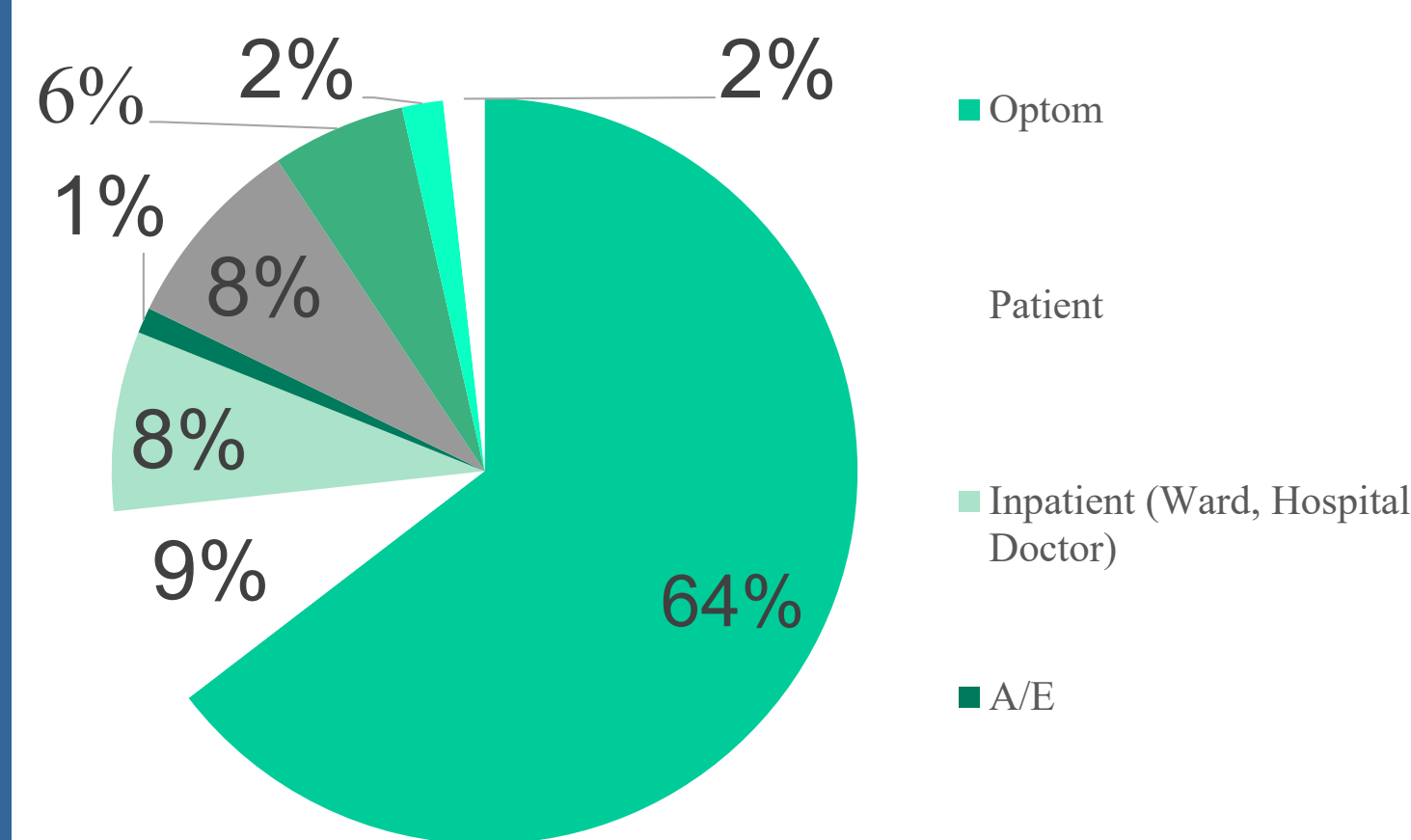
Figure 4. Referral source

Specialty	Number	Percentage
URC Returns	19	21%
Medical Retina	15	16%
Surgical Retina	14	15%
Cornea	14	15%
Neuro-ophthalmology	9	10%

Table 2. Follow ups by specialty

Discussion

CDU is a busy service receiving 52.5 referrals per day on average. 40% of referrals were seen in URC with a 64% coming from optometrists.

Over 50% of patients seen in URC were discharged the same day. This suggests a role for tele-ophthalmology between primary and secondary care. Community optometrists are encouraged to send images to CDU for evaluation. "Near Me" clinics are already setup within oculoplastics and teleophthalmology clinics are being set up involving community optometrists for anterior segment issues.

This study has highlighted areas for resource allocation particularly follow-up patients in cornea, medical and surgical retina clinics.

Limitations include a very short 2 week duration and the data collected excluded out of hours work and routine referrals out-with cataract and glaucoma referrals.

Conclusion

It is clear that CDU is pivotal in triaging urgent referrals, providing clinical advice to community optometrists, and accepting only appropriate cases to HES thus reducing the footfall at the eye clinic. For post-COVID service planning we see a role for teleophthalmology, shared electronic patient records and "Near Me" clinics. This paradigm shift allows timely assessment of patients whilst preventing unnecessary visits to hospital.

References

1. Reopening and redeveloping ophthalmology services during Covid Recovery – Royal college of Ophthalmology Interim guidance 2020
2. Service Review of NHS Grampian Eye Health Network, May 2014