Utilising the Clinically Led workforcE and Activity Redesign (CLEAR) methodology to redesign ophthalmic services: a proof-of-concept project

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Introduction

Demand for NHS ophthalmic services far outweighs capacity. Adaptation and adoption of evidence-based initiatives to increase capacity is impacted by insufficient access to data for robust workforce planning and a disconnect between strategic thinking and operational reality.

The Clinically Led workforcE and Activity Redesign (CLEAR) program supports the NHS to transform services and workforce using a technical and data-driven foundation but it had never been applied to ophthalmology.

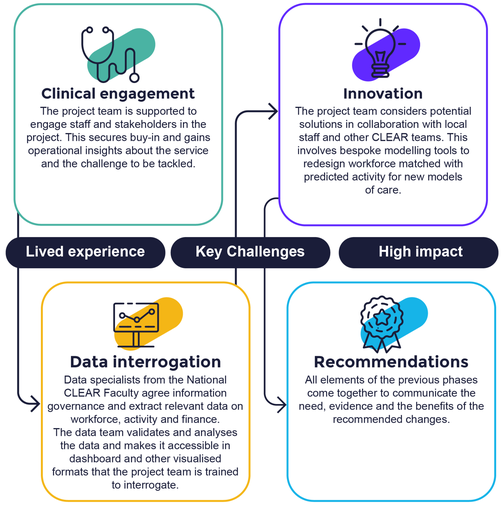
Aim

To apply CLEAR methodology within ophthalmology; focusing on how clinical engagement and data interrogation can support the development of new models of care and workforce which are designed to tackle the elective backlog.

The CLEAR methodology

The CLEAR methodology puts clinicians in the driving seat of change – equipping frontline staff with new skills in data analysis, transformation and workforce redesign. It consists of four stages:

1. **Clinical engagement:** n=49 staff members were interviewed to understand key issues. Data was analyzed using a rapid thematic approach.
2. **Data interrogation:** five years of clinical data was extracted from hospital systems. Following robust information governance procedures data was validated and transformed into a bespoke ophthalmology data dashboard. Cohort analysis was completed based on hypotheses identified from the clinical engagement stage.
3. **Innovation:** data was triangulated and new models of care were co-designed with the clinical teams.
4. **Recommendations:** data driven workforce modeling and a full impact assessment was completed.



Results: clinical engagement

Clinical engagement: Five key themes were identified in the clinical engagement stage:

1: Opportunity to improve processes and ways of working e.g. risk stratification of cataracts for allocation to standard, complex and high-volume low complexity lists

2: Resource deployment not always aligned with demand e.g. integration of job planning for referral refinement and streamlining of workforce within clinics for investigations

3: Opportunity to improve IT infrastructure and data collection e.g. multiple systems used within theatres that increased admin time and impacted productivity

4: Lack of head space to think strategically and with a potential sense of disempowerment e.g. clinicians overworked with lack of time to consider and implement improvements

5: Health and safety risks pertaining to data and estates e.g. crowding in corridors and manual collection of key clinical data

Results: Data interrogation

Data interrogation: Data dashboards contained 79,595 patient records and 571,140 appointments. The dashboards allowed visualization of activity trends over time, activity heat maps, theatre efficiency analysis, outpatient pathway metrics, and risk stratification of glaucoma and cataracts.

Cataracts:
Capacity was not meeting demand.
- ~60 new cataracts referrals pw, but an inconsistent number of clinics offering between 12-75 appointments
- ~44 cataracts procedures pw, a shortfall of 13 operations
- Median of 5 patients per list- at this surgical rate, it would require 11 cataracts lists pw or 48 lists pcm
- One short notice cancellation per list (within 24 hours) with no mechanism to fill the slot
- As a result, 35 patients pw were sent to the private sector
- Theatre session was utilisation 0.7 - in a four-hour list, 2.8 hours are being used operating.

Glaucoma:
Over 7,000 patients on the waiting list and evidence of an increase in the number of severe glaucoma cases.
- The waiting list for Glaucoma exceeded 7,000 patients:
  - 646 patients were waiting for their first outpatient appointment, with a waiting time that exceeded 52 weeks
  - 3,861 had an overdue follow up appointment
  - 2,667 were waiting for a future follow up appointment
- Using the current model of care 400 appointments pw required to clear the waiting list in 6 months **(2.5 x capacity)**
- Cases of severe glaucoma had increased from 2 to 5 pw (figure 1).

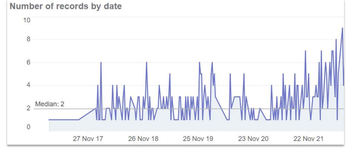


Figure 1: severe glaucoma weekly over time (median 2pw 2017-2020, now median 5 pw)

Medical Retina:
Cases rises and workload unsustainable
- ~200 referrals to medical retina/month - growing ~10% a year
- Referral refinement work alone takes 0.2 WTE – not job planned. This equates to a day of overtime a week
- Nurse injectors feel the current caseload is unsustainable

Recommendations

Cataracts and theatres
1. Consistent number of cataract clinics pw
2. Stratification of theatre lists to integrate high volume low complexity, standard and complex/GA, using a risk stratification tool for cataract and increasing homogeneity of cataracts lists
3. Case manager to support filling last-minute list cancellations
4. Agreed pre-operative standards for pooled surgical lists and nurse/trainee consenting clinic (HVLC) to support earlier starts
5. Options for two permanent cataracts theatres to meet demand
6. Reduce administrative burden in theatres.

Outpatients and workforce
1. Immediate initiatives to tackle backlog: 'prEYEority' month.
2. Development of a new outpatient referral and glaucoma pathway with workforce modelling that would allow capacity to meet demand (figure 2). This pathway includes use of:
   i. Phased integration of cross-hospital and community glaucoma service
   ii. Eyecare electronic Referral System (EeRS)
   iii. Job planning for referral refinement
   iv. Co-located on-site diagnostic hub
   v. Training of optometrist/AHPs/nurses for glaucoma and AMD and use of the Certificate of Eligibility for Specialist Registration (CESR) programme for trust grade doctors
   vi. Review of clinic flow and optimisation of waiting area.

	Consultant	ACP	Trainee	Nurse/HCA	Total
Current workforce	2.4 (32%)	0.4 (5%)	1.0 (13%)	3.7 (50%)	7.5
Current model (scaled to meet demand)	7.8 (32%)	1.8 (5%)	3.0 (13%)	13.2 (50%)	25.9
New workforce model	3.5 (24%)	3.3 (22%)	2.2 (15%)	5.6 (38%)	16.4
% difference*	**9% ↓**	**17% ↑**	**2% ↑**	**12% ↓**	**9.51 ↓**

Figure 2: Workforce modelling for glaucoma

Conclusions

CLEAR was helpful in supporting ophthalmic services develop locally owned transformative solutions to reduce backlogs and create sustainable working environments for staff.

If implemented, the recommendations could reduce the number of cataracts lists from 29 to 19pcm (~£1m savings), avoid lost theatre time from cancellations (~£250k savings), lower imaging costs (~£27k), diversify workforce and reduce the risk of avoidable sight loss. New model of care for glaucoma/outpatients would be £835k/year less than scaling the current model, offset by cataracts savings.

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