Optimising the implementation of a validated patient-reported outcome measure (PROM) for the cataract service in Leeds

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BACKGROUND

- Patients in the United Kingdom are seeking and undergoing cataract surgery at an increasingly early stage.
- Cataract surgery at earlier stages may result in only a minimal change in best-corrected visual acuity but still confers a significant subjective improvement to quality of life[1].
- Patient-reported outcome measures (PROMs) to capture this subjective improvement are paramount in the context of increasing NHS-funded elective cataract operations (608,000 in England in 2022 from NHS data[2]) and tightening budgets.

CAT-PROM5

- Cat-PROM5 is a self-delivered patient questionnaire that was designed and validated in the UK National Health Service (NHS) for high-volume cataract surgical services[3].
- The questionnaire was developed following a high-priority research recommendation from NICE in 2017.
- Cat-PROM5 consists of 5 short, multi-choice questions to holistically assess quality of life (panel right).

1. Does your bad eye affect or interfere with your vision overall?
2. How much does your eyesight interfere with your life in general?
3. How would you describe your vision overall with both eyes open (and wearing your glasses)?
4. How often does your eyesight prevent you from doing the things you would like to do?
5. Do you have difficulty reading normal print in books or newspapers because of trouble with your eyesight?

METHODS

1. Email addresses were collected from consecutive patients attending pre-assessment for cataract surgery, starting from March 2023
2. Link to Cat-PROM5 questionnaire portal was automatically sent out to patients via email by the unit's electronic health record system (mediSIGHT, Medisoft Ltd., Leeds, UK)
3. **Pre-op:** Patient completes the questionnaire before surgery date
4. Patient undergoes their operation
5. **Post-op**: Follow-up Cat-PROM5 questionnaire was automatically sent to patients again 3 months after surgery

Question 1: What proportion of patients fill out the questionnaire? Does the response rate allow meaningful comparison before and after surgery?

Question 2: Any factors associated with Cat-PROM5 non-response?

- Quantitative and qualitative comparison of responders vs. non-responders to pre-op questionnaire over a 4-month period
- 100 patients compared by age, sex, index of multiple deprivation (IMD) decile, days between email and surgery date and comorbidities
- Thematic analysis to saturation of phone conversations with patients

RESULTS: QUESTION 1

- **Response rate to pre-op Cat-PROM5 questionnaire in first 6 months was 11%**
- Likely restricted by a necessary update to mediSIGHT and novelty of the workflow
- This low response rate would limit the utility of the automated Cat-PROM5 system
- Pre-assessment staff were re-trained to increase familiarity with email collection workflow, optimise explanations to patients and remind several times during visit
- After a further 12 months, the **pre-op response rate had increased to 31%**

RESULTS: QUESTION 2

- **No statistically significant difference between Cat-PROM5 responders and non-responders** in age, sex, IMD decile, ophthalmological comorbidities or the time between pre-op questionnaire distribution and surgery
- 26 patients that did not respond to the pre-op questionnaire were successfully contacted for telephone interviews:
  - 60% remembered discussing Cat-PROM5 at pre-assessment when prompted
  - However, 88% did not recall receiving the questionnaire via email
  - Only one participant could locate the questionnaire in their inbox when asked
  - Other reasons given for non-response given by participants included: dependence on others to manage their email; difficulty with technology; fear of scams; forgetfulness; and difficulty keeping track of many health-related commitments

CONCLUSIONS AND NEXT STEPS

- Iterative optimisation of Cat-PROM5 response collection in one NHS Trust tripled the pre-op Cat-PROM5 questionnaire response rate
- In this patient sample, no patient or service factors were identified that predicted questionnaire non-response
- Qualitative analysis of questionnaire non-response has guided improvements to questionnaire distribution (below). Response rates will be re-audited in 3mo.
  - ➢ NHS logo added to email and subject header simplified to reduce filtering to spam. Questionnaire text and button size increased for mobiles. Potential for a "reminder" text / email function at 7 days after pre-assessment as 91% of responses were received within 2 days and the latest response at 7 days.

REFERENCES

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