

CLAHRCBITE

Brokering Innovation Through Evidence

Assessing Patient Reported Outcomes (PROMS) for emergency admissions: laparotomy for gastrointestinal conditions



Audit of emergency surgery aims to provide high quality comparative data from all providers, but is usually limited to immediate clinical outcomes during the acute hospital episode with little attempt to capture patients' views of their longer-term outcomes.

Our aim was to determine the response rate to patient reported outcome measures (PROMs)- which asks patients for their views on their health (such as their functional status, or their health related quality of life) and can be used to assess the effectiveness of care delivered to NHS patients – for patients who underwent an emergency laparotomy for gastrointestinal conditions, identify response bias (a known risk in collecting surveys and questionnaires) and explore the feasibility of comparing patients' post-operative outcomes with their preoperative health based on their recalled view, collected during their admission.

What was the aim of the project?

Asking patients' for their views of their health is becoming a key and increasingly important focus in the NHS. It is also helps doctors and hospital providers know whether the care they have given helps patients recover, and to measure the effectiveness of care provided.

Emergency admissions account for nearly 40% of all NHS hospital admissions, making news headlines repeatedly due to their increasing rates and rising costs to the service; it is also an area where the NHS knows least about the quality of care in terms of patients views of their health and outcomes. PROMs are not currently used in this area of healthcare because the methods for doing so pose a challenge, for example in how we can record patients' views of their health before their admission, and whether it is feasible to collect PROMs in acute care settings.

This project investigates the possibility of extending PROMs collection into this area to allow better assessment of health services, and therefore guide further advances in understanding the quality of our health services to patients.

Emergency Laparotomy is an operation used for people with severe abdominal pain to find the cause of the problem and

in many cases to treat it. It is one of the commonest emergency surgical interventions with higher postoperative morbidity and mortality than elective (planned) procedures. In elective surgery clinical outcomes can be supplemented by Patient Reported Outcomes Measures (PROMs), but they have not been used routinely for emergency admissions.

Whilst the feasibility of asking emergency laparotomy patients to recall their pre-admission health status has been demonstrated, their likelihood of responding to a mailed post-discharge questionnaire is unknown.

What we did

Patients undergoing emergency laparotomy in 11 hospitals were recruited to complete a retrospective questionnaire containing existing PROM measures – the EQ-5D-3L (covering mobility, self-care, usual activities, pain/discomfort and anxiety/depression) and Gastrointestinal Quality of Life Index (GIQLI). Response rate for 3-month mailed follow-up questionnaire and potential response biases were assessed. Patients' outcomes were compared with their baseline using chi-squared and paired t-test to assess for differences.

What we found

Of 255 patients contacted at three months, 190 (74.1%) responded. Responders were more likely to be older, female and more affluent. Patients' health improved significantly as regards the GIQLI (93.3 v 97.9; $p=0.048$) and the sub-scale on symptoms

(51.9 v 59.6; $p<0.001$). No significant change in sub-scales on emotion or physical aspects or for overall health status (EQ-5D: 0.58 v 0.64; $p=0.06$). According to the social sub-scale patients had deteriorated (11.0 v 9.8; $p<0.0006$). Differences in change scores by patient characteristics were slight, suggesting minimal response bias.

Therefore we found that: PROMs can be successfully collected in patients three months after emergency laparotomy with a response rate of 74% using mailed follow-up. Most patients have not only regained their prior level of gastrointestinal health but their general health also improved.

What next?

This approach assesses from the patient's perspective, the impact of emergency laparotomy treatment. It also offers an insight into the opportunity for assessing other hospital admissions that are emergencies. The generalisability of these findings needs to be investigated with research on other causes of emergency admissions.

Further research is needed to explore longer-term outcomes enabling mapping of recovery trajectories. In addition, by capturing clinical data on patients (e.g. P- POSSUM scores), such as by linkage to national clinical audit data, it would be possible to determine any association with diagnosis and severity. This would be essential to be able to make meaningful comparisons of hospitals' outcomes and to ensure the PROMs data could support clinical decisions.

Find out more

Kwong E, Neuberger J, Murray D, et al.
Feasibility of collecting and assessing patient-reported outcomes for emergency admissions: laparotomy for gastrointestinal conditions.
BMJ Open Gastroenterology 2018;5:e000238. doi: 10.1136/bmjgast-2018-000238
<https://bmjopengastro.bmj.com/content/5/1/e000238>

Further reading

Kwong, E and Black, N
Feasibility of collecting retrospective patient reported outcome measures (PROMs) in emergency hospital admissions
Journal of Patient-Reported Outcomes 2018 2:54
<https://doi.org/10.1186/s41687-018-0077-y>

Black, N
Patient reported outcome measures could help transform healthcare
BMJ 2013; 346 doi:
<https://doi.org/10.1136/bmj.f167>

London School of Hygiene & Tropical Medicine PROMS research homepage
www.lshtm.ac.uk/research/centres-projects-groups/proms

EQ-5D Instruments – info from EuroQol Group website
<https://euroqol.org/eq-5d-instruments>