NELA: Improvements Made and Lessons Learned

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Introduction

•High mortality (15%) following emergency laparotomy has been reported nationally[1,2] with wide variations between hospitals in the UK [3].

•The National Emergency Laparotomy Audit (NELA) began collecting data in December 2013, and publishes reports annually

•Kingston Hospital has been specifically named in the national audit for its improvement since the 2013.

•Kingston Hospital has achieved these improvements in peri-operative care through a number of multidisciplinary team interventions.

•We share these measures below, and show how mortality and LOS improved.

Methods

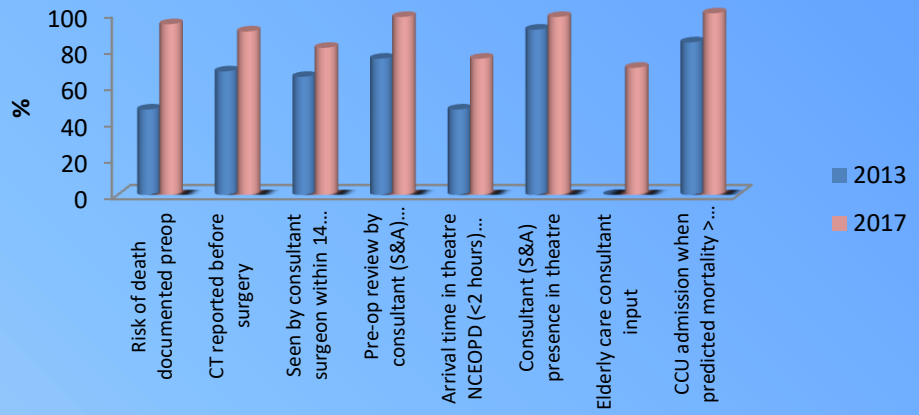
•Data was collected prospectively, from Dec 2013 (Year 1, 142 patients), Jan 2015 (Year 2, 112 patients) and Jan 2016 (Year 3, 97 patients). Year 4 data has been analysed up until Sept 2017 (67 patients).
•A multidiscipliniary team of surgeons, anaesthetists, intensivists and radiologists agreed on a set of key interventions

Results

418 patients analysed over since 2013 (Year 1: 142 patients, Year 2: 112 patients Year 3: 97 patients, Year 4: 67 patients to date)
In the Year 3 analysis, Kingston Hospital achieved green in 9/10 of the RAG analysis of national standards, and achieved amber in 1/10 (elderly care consultant review). Graph 1 shows our 30-day mortality alongside predicted mortality, using the P-possum score.
Graph 2 shows the improvements following changes following the introduction of our emergency laparotomy pathway

Graph 1: 30 day mortality and average P-possum scores

Graph 2: NELA standards



Discussion

•Since the start of NELA in 2013, Kingston Hospital has reduced mortality, despite a trend towards a sicker patient group, with higher ASA, and P-possum scores.
•This has been achieved through regular MDT meetings with surgeons, anaesthetists, intensivists and radiologists who examined local NELA data together against the national standards.
•Areas of change in practice include documenting preoperative risk assessment, anaesthetic and surgical consultant supervision, both in assessment and in theatre, timely radiological input and arrival in theatre, critical care admission and ward reviews by COE physicians.
• Focusing on these key areas has brought about a reduction in mortality across all age groups
•We now have funding for a second Care of elderly consultant, and hope to achieve green in the 100% of the RAG ratings next year.
•Kingston Hospital has been specifically praised, in 2 consecutive NELA reports, for the improvements we have made over the last 4 years.

Conclusion

•The clinical pathway for patients undergoing emergency bowel surgery is complex, and requires input from clinicians from several specialties.
•By analysing the data regularly and discussing how improvements can be made through a multidisciplinary approach has improved our 30 day mortality.
•We hope to achieve green in 100% of the RAG ratings next year, and expect to see a further drop in mortality.

References:
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3. Anderson ID et al. The Higher Risk General Surgical Patient. *The Royal College of Surgeons of England and Department of Health*. London, 2011.